

AN INTRODUCTION TO  
EXPOSITORY WRITING

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TO EXPOSITORY WRITING





# AN INTRODUCTION TO EXPOSITORY WRITING

BY

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AN INTRODUCTION TO EXPOSITORY WRITING

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## PREFACE

THIS book is an attempt to set forth the basic processes of expository writing in a form that will be intelligible and helpful to first-year students. It is designed to cover the work of the first half year or the first two quarters in colleges and universities where considerable attention is given to exposition, and to be supplemented by one of the excellent handbooks now in common use for the study of the sentence, such as Smart's *Handbook of Effective Writing*, *The Century Collegiate Handbook*, or Woolley's *Handbook of Writing*.

The book is in two parts. In the introductory discussion the qualities aimed for are simplicity, conciseness, and definiteness. It is hoped that the beginner will here find his ordinary difficulties anticipated and met with precise directions for procedure, while he is not required to read through a number of pages to learn what is expected of him. Particular attention is given to the handling of ideas based on reading and to the distinguishing of various expository types, with detailed and, the authors trust, stimulating suggestions as to subject matter. Most instructors will prefer to make their own assignments, but some suggestive exercises have been added to each chapter. They include more material than could be used in the ordinary class.

In selecting the illustrative material, which forms

more than half the book, the authors have been guided by several purposes. They wished to furnish abundant examples of the forms discussed as well as models to be followed and articles to give training in reading. This training, formerly more or less assumed, is coming to be viewed as important. The selections are largely from contemporary writers within the interests of the ordinary freshman, but of a quality to spur him to emulation as he sees well and easily done what he is trying to do. For this purpose the student themes are particularly useful.

Since the ideas and methods here embodied have been worked out through years of classroom experience, they are necessarily a composite from numberless sources—from study of textbooks and the work of successful colleagues. The authors make grateful acknowledgment to all of these for ideas consciously or unconsciously assimilated. They wish also to thank particularly the members of the staff at Iowa State College who kindly read the manuscript and made many helpful suggestions, and the authors and publishers who have permitted the use of copyrighted material.

D. G. T.  
J. M.

AMES, IOWA

November 15, 1925



Part One

THE PRINCIPLES OF EXPOSITION



## CHAPTER I

### THE THEME

#### PLANNING AN EXPOSITORY THEME

EVER since the early days when man invented writing or even the much earlier time when he learned to frame sounds into speech, language has been the chief method of communication for human beings. Practically the only way for one person to make his ideas, fancies, or emotions clear to another has been through combinations of words in sentences and of sentences in paragraphs—that is through the use of composition. Especially in this complex age with all its varied demands it is important that educated people have some mastery over forms of expression. This mastery, like all others, is gained only from practice, and a whole-hearted realization of its value will make the practice seem worth while. College themes, then, are practice, a means to an end, not the acquiring of knowledge, but the gaining of skill.

**Wide Use of Exposition.**—Writing accounts of happenings or descriptions of scenes is useful practice, but perhaps no form of composition is so immediately practical as that called exposition—a word which means simply explaining. It is a form of writing and speaking which we are most likely to have occasion to em-

ploy. Whenever we give directions or suggestions for doing a piece of work or playing a game, whenever we voice an opinion or try to make our viewpoint clear to some one else, whenever we tell about our town or try to inform our friends as to what college life is like, we are using exposition. All our lives we shall continue to need this form of composition, whether we write a letter to a newspaper or an article for a magazine, whether we deliver a carefully prepared address or merely stand up in a meeting to express ourselves on some matter under discussion. Some of these things we shall certainly do, as every responsible citizen does at some time. The question is, Shall we do them well, or shall we do them poorly?

Yet to look upon our theme writing as practice work does not mean that the choice of subjects is of no importance. A course in composition is training in getting the most out of worth-while material, which is thoroughly comprehended. It is not intended to enable us to do something that merely looks well with nothing behind it.

**Sources of Material.** —When confronted with the problem of what to write about, we have first to consider the sources of our information, our notions, and our opinions. It is evident that we have gained these from studying, reading, conversing with better-informed people, and from actual first-hand contact with life through what we ourselves have done and seen and reflected upon. All of this may count as our experience in so far as it is fully and clearly understood. To look up unfamiliar material we go to a library and consult

reference books and magazine articles.<sup>1</sup> At the beginning, however, it is as well to confine our efforts to learning to handle material that is already familiar and at our command.

The word "reflected" used above is significant, for it is only reflection that gets any of this mass of possible subject matter into usable form. That is to say, we cannot write successfully about anything until we have thought it out. It will pay in the end if at this stage we "make haste slowly." After choosing a general subject, within our range and grasp, we must decide which part of it we will write about. There are various considerations: first, the length of the piece of work planned; second, the kind of audience we are addressing; third, the exact purpose we have in mind.

The amount of space at our disposal makes a decided difference in the breadth of the subject we should choose. For instance, "Moving Pictures" is an appropriate subject for a book. It is true enough that in some encyclopedia a 300-word article might be written, giving a cursory treatment of even this large subject; yet for a theme of even 3,000 words, with any attempt at interesting detail, "Some Values of Moving Pictures," or "What Movies Mean in My Town," is more possible, and for a theme of 500 words or less "One Danger from Moving Pictures," or "My Favorite Star." We can see then that the smaller the space to be filled the more specific the subjects tend to become and the more clearly they suggest exactly what is to be said in the theme.

<sup>1</sup> See chapter viii.



We should consider likewise the people who are to read or listen to what we write. It is evident that we should use a quite different vocabulary and method in explaining a chemical experiment if addressing members of the class, who presumably understand all the technical terms, from what we should use if writing for the general public. The difference is still more noticeable if we are trying to make the complicated reaction clear to a group of children in the seventh grade. We should take into account not only the understanding of our audience, but also their tastes and interests, and so far as possible adapt our writing to these.

But most important of all the reasons for choosing a certain subject or a certain phase of a subject is our purpose—what we mean to get at and where we mean to come out at the end, presumably carrying our reader's interest with us. In order to be certain that this purpose is absolutely clear and can be used as a sure guide both in planning and in writing, it is well to express it. So it should be stated as directly and definitely as possible in a sentence, which we may call the *controlling idea*. This will be only vaguely suggested by the title. In fact the same subject may be looked at from varying angles and with various intentions. For example, themes on the general topic, "Responsibilities of a College Freshman," might follow all these controlling ideas: "The college student finds himself meeting with many new responsibilities." "The average college student tends to take himself and his new surroundings too seriously." "Far too much is expected of the poor freshman." "The responsibilities

of a freshman are such as to help develop his character." These themes, though based on much the same informational material, would have entirely different treatment and even more noticeably different tone or mood.

**Working Out a Plan.**—Now having decided definitely upon the subject, having limited it and determined exactly the slant and the method of treatment, we meet the questions, "Just what shall we say? Where shall we begin?"

Probably the best thing to do first is what many rhetorics advise—that is, find out what we really know about the subject by jotting down rapidly all the points that we can think of just as they occur to our minds, making the list as complete as possible. Next we examine the list with reference to the controlling idea, and cross out everything which does not submit to that control. What is left is probably the raw material of a theme.

At this point we feel the desirability of having a plan. As the architect depends on his plan to show how the rooms in his house are related to one another, as the explorer makes a map so as to be sure where he is and where he wants to go, as the dressmaker or tailor constructs a pattern before cutting the cloth, so the writer of exposition, if he be wise, decides, before he actually starts to write, where he shall begin, what parts belong together and what should be kept apart, just what shall come next to give the best effect, with what point he wishes to end, what points are more general, what are on a level in treatment. To put it briefly, he makes an

outline, which is merely an orderly arrangement of his ideas. In making such a plan he finds that he has a few large groups of ideas, each of which evidently treats one phase of the subject. Sometimes each is made up of subordinate groups which gather up ideas still more intimately connected with one another.

**Order of Topics.**—There are various reasons for arranging what we call the “main divisions” of an outline. We find that we are likely to put first what naturally comes first as we think over our material, and work from that. Probably we do this for one of three reasons: this topic seems most familiar and makes us feel at home with the subject; it seems most general or broadly explanatory of what follows; it seems likely to catch the reader’s interest. Now, if we give the thought we should to the matter, we shall be careful to put second the topic that seems most like the first.

For instance, suppose that with the subject “Hard Roads Near My Home,” and the controlling idea, “The paving of roads has been one of the most important influences in my community,” we had jotted down the following main topics:

- I The extent of the hard roads
- II Improvements in roads since the coming of the automobile
- III Need for further improvement
- IV Effect on travel
- V Kinds of hard roads

For various reasons this order is bad. Topics dealing

with ideas of the same kind are not together. The discussion of the need for future improvement should not be sandwiched between the practical descriptive details of I and IV. Evidently the generalized topic, "Improvements in roads," is introductory and not part of the main discussion. Then the ending is ineffective. The preliminary detail it contains is needed near the beginning of the theme to make clear what comes later. The following arrangement is much better:

Introduction: The improvement in roads since the coming of the automobile.

Body:

- I Extent of hard roads
- II Kinds of hard roads
- III Effect on travel
- IV Need for further improvement

Here the thought moves from the definite information required at the start, through the points which naturally present themselves, to an ending which carries from the present into the future and makes evident the purpose of the whole theme.

The order of topics varies according to the kind of material we use and our intention. It is a matter of feeling for logical relationships and natural sequence, which nothing but thoughtful practice can thoroughly teach. Usually, however, we proceed (1) from the familiar to the less known, (2) from the near (either in space or time) to the more remote, (3) from the general and inclusive to the particular and specialized—

though sometimes this order is reversed, (4) from cause to effect—or occasionally from effect to cause, (5) from condition to remedy, (6) from negative to positive, and (7) in general toward the most important and forceful point so as to give an effect of climax. The same thought principles are followed in arranging the subdivisions of the various groups.

As an illustration of the first order, suppose we were writing on "Wild Flowers of My Neighborhood"; it would be natural to tell first about flowers like violets and buttercups which everyone knows, and later about the occasional fringed gentian and rare orchid. If we were writing on batik we should properly give attention to the process as carried out in this country before taking up the strange method of the art practiced by the Javanese. In somewhat the same way we shall find it easier to make clear the hold of old superstitions like astrology or witchcraft if we first explain the belief some ignorant people still have in the power of the evil eye, or the interest they feel in the stars. This sort of time relation does not, of course, interfere with the chronological arrangement which is common in some types of exposition. In a theme on a "Clean-up Campaign" in a city, we should first explain the intentions and the methods of the campaign, and then the various effects on health conditions, and the impression the change makes on visitors and on the citizens themselves in added self-respect and civic pride. The order of the subtopics is here determined by importance, physical effects being treated before psychological. Again, in



taking up the problem of the exodus of young people from the country to the city, we should first analyze the condition and then suggest what should be done to remedy it.

The end of any piece of writing should leave with the reader a sense of completeness and a feeling of the importance and meaning of the subject. We need to be sure that we have been fair to our own purpose in the final impression. Unless we wish definitely to emphasize the negative side of a subject, we should treat disadvantages before advantages, unfavorable criticisms before favorable, or disagreeable detail before agreeable. The strong emphasis given by position to the final point cannot be counteracted by such a naïve statement as, "Nevertheless, the advantages in my mind far outweigh the disadvantages." If we think that, we should indicate the fact by a treatment which will impress the advantages on the reader's mind. For instance, in discussing "Athletics in My High School," we should first treat the scanty equipment, the small number from which to choose a team, the inadequate training of the coach, and then bring out the interest of the town people and the enthusiasm and determination of the school which sometimes led to victory. Unless we really dislike a novel we are discussing, we should deal first with the occasional dull passage, the overloading with description and the improbable incident, and then take up the reality of the characters, the clever plot, and the exciting action. Attention to the ending always pays.

## THE OUTLINE

The necessity of an outline as the basis for work in composition is so generally recognized as to require no discussion. There is, however, a difference in opinion as to the best form. There are three chief forms, which may be designated as the Topic, the Sentence, and the Continuous. In all cases, the outline consists of a list of headings and subheadings. These must be so indented and marked as to indicate their relation to the whole subject and to one another. The following scheme of numbering and lettering is the one generally approved.

## Introduction:

I

II

## Body:

I

A

B

C

II

A

I

2

a

b

B

I

2

3

III

A

B

C

Conclusion:

A glance at this skeleton shows clearly certain points. We know, for instance, that the theme as planned is to have a formal introduction and conclusion. In many short themes these are not necessary, and the words Introduction, Body, and Conclusion would not appear in the outline. If an introduction and a conclusion are needed, they should never be marked as if they were coordinate with the main divisions of the theme itself. In the theme based upon this outline, the introduction is apparently to be somewhat fully developed, for it is divided into two points. The conclusion, on the other hand, is to consist of but one point, perhaps a summarizing paragraph. As we study the outline of the body, we perceive that the writer considers his material as included under three main heads. Further, each of these main heads has subdivisions, and in some cases sub-subdivisions. Each division shows by its position on the page and by its letter or number its relation to other points. Thus we know that B found under II indicates a point that is subordinate to II and coordinate with A,

and that it is itself broken into three subordinate parts indicated by 1, 2, and 3.

There must, of course, always be more than one subdivision if a heading is divided at all, since any real division will result in two or more parts. The writing of a single subordinate heading indicates careless thinking. Either another heading is needed coordinate with this one to complete the plan for discussion of the larger point, or else this subhead is not in reality a subhead at all, but merely a restatement of the larger head under which it stands. Thus a study of A in the skeleton below may reveal the fact that 1 is not really a subdivision, but rather the whole idea to be discussed in A—that is, merely another way of phrasing A. On the other hand, further thought may show that A ought to be divided and that consequently the other part or parts ought to be included. In that case, it will be necessary to add a 2 and perhaps a 3 and 4 to cover all the points the writer wishes to include in his development of A.

I

A

1.

B

II

What has been said so far may apply equally to the Topic, the Sentence, and the Continuous Outline. The differences appear in the phrasing of the headings.

## TOPIC FORM

*What a Student Should Gain from His Work in College English.*

Controlling idea: College English should increase a student's power in all fields of effort which involve the use or understanding of the English language.

## Introduction

- I Erroneous idea of college English as merely theme writing
- II Wide variety of objects actually attained

## Body

- I Increased power to profit through reading
  - A Power to grasp thought of printed page
  - B Appreciation of the fine qualities of literature
  - C Enjoyment of the best in literature
- II Increased power of expression
  - A Oral
    - 1 Theory—constant emphasis upon correct forms of speech
    - 2 Practice
      - a In informal recitation
      - b In oral composition
  - B Written
    - 1 Drill in mechanical details
    - 2 Study of correct models
    - 3 Constant practice in writing

## III Increased mental power

A Ability gained from reading to follow a line of thought more exactly

B More accurate habits of thought through attention to details

C Broader vision from acquaintance with ideas of thinkers

Conclusion: College English as a means to the enriching of life.

In the topic outline, each heading is expressed in the form of a topic, which may be a noun, usually with modifiers, or a phrase whose relationship to its superior heading is easily perceived. The advantages of the topic form are the ease with which the relationships of the various headings may be seen and the simplicity which comes from brevity. Many writers find this the most workable form of outline, since it shows at a glance the details of the plan, and by its simplicity of phrasing reduces the required labor to a minimum.

## SENTENCE FORM

*What a Student Should Gain from His Work in College English*

Controlling idea: College English should increase a student's power in all fields of effort which involve the use or understanding of the English language.

## Introduction

I The idea that college English is merely theme writing is erroneous.

- II There is in reality a wide variety in the objects attained.

Body

I The student should increase his power to profit through reading.

A He should gain power to grasp the thought of the printed page.

B He should gain appreciation of the fine qualities of literature

C He should increase his enjoyment of the best in literature.

II He should increase his power of expression.

A He should improve his speech habits.

1 He should increase his knowledge of theory through constant emphasis upon correct forms.

2 He should gain added mastery through practice.

a He should learn through informal recitation.

b He should learn through oral composition.

B He should improve his written expression.

1 He should have drill on mechanical details.

2 He should study correct models.

3 He should have constant practice in writing.



## III He should increase his mental power.

A Through his reading he should gain ability to follow a line of thought more accurately.

B Through attention to details he should gain more accurate habits of thought.

C Through acquaintance with ideas of thinkers he should gain a broader vision.

Conclusion: College English is a means to the enriching of life.

The second kind of outline, usually called the sentence type, receives its name from the fact that each heading is expressed in the form of a complete sentence. Its chief advantage over the topic form is that it compels fuller consideration of the content of the theme. The writer must know not only what he is to write about, but the exact point he is to make regarding each topic. It is true that the fully adequate topic form will contain such information, but the indolent writer has perhaps not the same compulsion to complete formulation of his plan that he has with the sentence outline. The sentence type is particularly desirable in material which demands very careful discrimination between points likely to be confused, since it gives an indication to the reader of the steps in the development of the thought.

## CONTINUOUS FORM

*What a Student Should Gain from His Work in College English.*

Controlling idea: College English should increase a student's power in all fields of effort which involve the use or understanding of the English language.

Introduction: College English includes

- I not merely theme writing, as some suppose,
- II but in addition a wide variety of objects.

Body: Through work in college English the student should gain

- I increased power to profit through reading, because of

- A power to grasp the thought of the printed page

- B appreciation of the fine qualities of literature

- C enjoyment of the best in literature

- II increased power of expression

- A oral, through

- 1 fuller knowledge of theory gained by constant emphasis upon correct forms of speech

- 2 practice in

- a informal recitation

- b oral composition

- B written, through

- 1 drill in mechanical details

- 2 study of correct models

- 3 constant practice in writing

- III increased power of thought, through
  - A ability gained by reading to follow a line of thought more accurately
  - B more accurate habits of thought through attention to details
  - C broader vision from acquaintance with ideas of thinkers.

Conclusion: College English is a means to the enriching of life.

The third kind of outline, the continuous type, has the advantages of the sentence type with the added advantage of economy of phrasing. It also shows a more exact relationship between points than does either of the other forms. Thus A is not only subordinate to I, but stands in a particular subordinate relationship, which is indicated by the appropriate connective word. This form is universally employed in the brief or outline of an argument. It is a valuable means of compelling the writer to plan his material fully and logically and to articulate the different parts of his discussion. All types of the outline offer valuable training in thinking, but this method makes even more exacting demands than the others. A useful modification of the continuous form is one which carries the sentence construction through each main head and its developing subheads, without requiring an unbroken structure throughout the entire outline.

Whatever method or combination of methods of outlining is chosen, headings that are parallel in thought should be given parallel construction. If A is a sen-

tence, B also must be a sentence; if A is a phrase modifying a verb in I, B also must be a phrase modifying the same verb; if A is a noun, B also must be a noun. An indiscriminate jumble of sentence, adjective, noun, clause, and phrase is a serious reflection upon the writer's power of clear thinking.

### DEVELOPING THE OUTLINE

**Unity.**—If the outline has been carefully planned with the thought of just what is to be said as the main consideration, a good deal of the work of theme writing will be over before we have framed a sentence. Now in preparing to clothe the skeleton with living tissues of thought, we shall do well to regard it as an arrangement of paragraphs. For the paragraph may be taken as the *unit of construction* as the sentence is the *unit of thought*. It is clear that many, indeed most, words have no particular meaning or value except in combination and that to make a statement requires an independent clause or proposition. It is not the word or phrase that is the unit, but the sentence. Those thought units, however, are too small to use in building themes, as they cannot without confusion be moved from one place to another in a piece of writing. Perhaps if we can imagine a wall being erected from blocks, each of which is itself a mosaic of variously shaped bits, we shall have a fairly clear idea of the relation of sentences and paragraphs, and shall feel how a writer may build with paragraphs.

There is, of course, no set length for paragraphs. As a general thing students should make theirs between

fifty and two hundred words long. It all depends upon how much there is to say on each topic, or how easily and naturally two paragraphs may be fused into one, or how desirable it is that they be separated. What is important is that each paragraph shall correspond to a topic in the outline. Such a topic may have been planned to have subdivisions. In that case we must either see that these subtopics correspond with the development of the paragraph as we write it, or get rid of them. For instance, if we were working up a theme on the outline in the preceding section, in developing the second main division of the body we might find that we had enough ideas to justify five paragraphs, of a hundred to two hundred words each. On the other hand, it might very well happen that we should write only three paragraphs, giving one each to oral theory and practice and taking only one to develop all the topics connected with power of written expression. Or A and B might each be a single paragraph. If, however, we decided to break up C in the first main division into two paragraphs, we should supply topics for the new paragraphs and be sure to put them into the finished outline. Such topics might be of this form:

- 1 Kind of enjoyment furnished
- 2 Ways in which college work contributes to enjoyment

We see, then, that the number and arrangement of the topics vary with any change in our plan and depend entirely upon the plan.

The amount of space taken up in development is

purely a matter of proportion. This, as has been explained, should have been decided before the outline was completed. Nevertheless, even now a change can readily be made by varying the scale. To cover a good deal of ground, what was intended for a paragraph may often be condensed to a sentence, and the paragraphs be made the developed main divisions of the subject. On the contrary, we may decide to write about just one of what we had planned for the main phases of our subject. When the subject is thus narrowed and the controlling idea altered to correspond, it will probably become necessary to subdivide what have been paragraph topics and to introduce some new topics for new paragraphs. Indeed, one of the best ways to supplement material that seems scanty is just to shift the scale of the outline and decide, for instance, what should be done with the main division if it were the whole theme. By this device our problem can soon be changed from search for something to say to an effort to simplify and condense our overabundant material into the prescribed limits.

One common fault of the beginner is that he leaves paragraphs undeveloped, being satisfied with a mere statement of a topic or an inadequate generalization or two. This practice leaves gaps in the progress of the thought. A good rule to follow is this: In general avoid the sentence paragraph. If an idea contributes nothing really valuable, eliminate it; if it is of value, develop it. If several topics are to be very briefly mentioned or commented upon, it is often convenient or desirable to unite them into one paragraph; but such



a miscellaneous paragraph should always have a definite topic and as clear a unity as circumstances permit. One thing to remember always is that each paragraph is a definite unit contributing to the forward movement of the whole thought.

Finally, everything in a theme should be in accordance with the controlling idea. This, which has determined the choice of topics in our outline, should be always in our mind in order to keep each paragraph and each sentence related to the whole. However important in themselves, irrelevant ideas and digressions, because they interfere with the thought movement, should be rigidly avoided in any piece of serious exposition.

**Coherence.**—As we found our paragraph topics in the outline ready for working out, so we find that the order of the parts, most important to any clear sense of progress, has been already decided upon when the outline was planned. Some of the means of securing the order most suitable to a given subject matter have been discussed in the first section. In the actual writing it often happens that, for various reasons, changes in the order will seem to be desirable. These should, of course, be made, just as the modifications in scale that were discussed in the former section should unhesitatingly be made when they will bring our writing nearer the desired effect. As we have seen, the outline is not a mechanical device nor a set of fixed requirements. It is a flexible plan, responsive to any change in intention on the part of the writer; it is a guide, not a dictator.

There is another equally important kind of coherence.

It is not enough that our separate paragraphs should be clear units; they must be worked together into a smooth pattern, along which the thought is carried in unbroken progress from the first word to the last. Sometimes the experienced writer can fit the end of one paragraph into the beginning of the next so naturally that no formal connection is required. This, however, is not always possible. Frequently it is necessary to use what are called transitions—various methods of bridging the space between points in the development—to carry the reader's mind easily from what has been said to what is to follow. Study of various articles in the second part of this text will furnish abundant examples.

A transition may be a word, a phrase, a clause, a sentence, or, occasionally, in a formal and extended exposition, a short paragraph. Whatever its length may be, the transitional element does not contribute any idea; it merely joins ideas so that there is no jar or feeling of strangeness in going from one to the other. Some of the ways of gaining this smooth junction between paragraphs or between sentences within the paragraph are the following: "echo words," generally nouns repeated from the end of one paragraph to the first of the next; words of reference like "such," "this," "the same," "another"; adverbs which suggest a change in the thought, like "however," "also," "nevertheless," "consequently," "so"; a summarizing phrase or clause, bringing what has gone before into connection with the new paragraph topic; a complete sentence at the beginning of a paragraph which summarizes or definitely refers to the preceding point.

Another means employed by the experienced writer to guide the reader is the practice of announcing a main topic or the general topic for a group of paragraphs at the beginning of the first one of the group, so that at any moment a reader knows not only where he is, but just what ground has so far been covered. To manage so that these general topics and transitions shall be clear and useful but not too obvious or obtrusive is our problem, one which takes both practice and thought if we are to acquire any skill.

Emphasis.—A theme may be so carefully planned and written as to conform to all the previous suggestions and yet fail of its effect. The difficulty may be with the emphasis. Emphasis is partly, of course, a matter of order; the topic put last should have value enough to the whole to justify its position. It is partly a matter of getting right proportions, so that what we care about most is most fully discussed. It is largely, however, a matter of making prominent the points which count. If we draw the reader's attention to certain points as deserving of notice, we throw the less important details into the background. For example, suppose we were writing on conditions six years after the war; we might announce a topic thus: "Another effect of the war has been the growth of suspicious feeling between the various countries"; but a better way of stating it would be something like this: "It was hoped that the war to end war would remove one of the main causes of hostility by healing the fears and suspicions of people who live near together; instead it has increased them many fold." The second statement brings the topic

into a strong light, arrests the reader's attention, and helps him to remember this as a topic vital to the theme. The effect desired here might be compared to that sought by the artist who has in his pictures a few strong "high-lights." Of course it would be absurd, after such an announcement, to leave the point undeveloped. We can easily see how ineffectual is such an end as this to a theme: "Though in my opinion much the most valuable result of this experience in a bank is the knowledge it gives one of how to deal with people, my space is so limited that I can no more than mention it here." We should plan, and we should carry out our plan so as to allow room for the points about which we care the most.

**Introduction and Conclusion.**—The question of how to begin and how to end gives a good deal of needless concern to inexperienced writers. The introduction is exactly what its name implies, a means of bringing together reader and subject. If preliminary knowledge is necessary, that is given in the introduction; if some prejudice or unfriendly feeling on the part of the reader is to be overcome, that task is attempted in the introduction; if the writer has a particular attitude toward the subject matter that he handles, he uses the introduction to make that clear. Of course not all expositions have introductions. Sometimes they start out simply with the first division of the theme proper. A short theme may require only a sentence or two of preliminary generalized statement. On the other hand, in a long serious article, where a number of adjustments

must be made, three or even four paragraphs may be needed to insure a good start.

The ending is generally much easier to manage than the beginning. It ought naturally to write itself, the momentum gained in developing the controlling idea carrying out beyond the actual development to an appropriate and satisfying close. As the introduction sometimes outlines what is to be said, the conclusion often sums up what has been said. Usually it recalls in some way the general controlling idea, but occasionally it is better for it merely to stress the final point or reach out beyond the scope of the theme into suggestions of the future or of undeveloped possibilities. It also may vary in length from a single sentence to two or more paragraphs.

**Cautions.**—Instruction as to handling detail will come more naturally in connection with paragraph development; but we might find it helpful to notice here one or two points, which may be put into the form of rules. First, then, distinguish between wordiness and adequate development. The using of padding and vain and wearisome repetitions is not real discussion, and certainly is no help in making the point clear. Second, use definite phrasing; avoid generalizations except as statements of topics. It is irritating to have a writer stay up in the air with vague and abstract pronouncements. What we desire as readers, and should give our own readers when we write, are definite, specific, concrete facts and experiences, which contribute meaning and life to the general topics that call them forth. A good test as to our success in setting out or explaining

a subject is to go over what we have written and see how clearly and effectively we have answered the questions which an intelligent and interested reader might expect to find answered in an exposition with that particular controlling idea.

### EXERCISES FOR CHAPTER I

1. Select five subjects upon which you could write themes of 1,000 to 1,500 words. Then narrow these to subjects suitable for themes of 300 to 500 words.

2. From the following list of subjects select three suitable for themes of 1,500 to 2,000 words, and three suitable for themes of 300 to 500 words. Find a controlling idea for each subject selected.

The Habits of Chipmunks  
The Peculiarities of My Roommate  
The Function of Athletics in a College  
How to Tell the Difference between a Pine and a Fir  
A Home-made Receiving Set  
The Difficulties in Getting Settled at College  
The Development of the Radio  
The Dormitory System at Our College  
The Value of Examinations  
The Best All-round Automobile  
The Best Method of Packing a Trunk  
Planning a Vegetable Garden  
Vacation Reading  
Clubs in My Town  
The Kind of Moving Picture I Like

3. The following subject could be developed with any of the three controlling ideas named. Indicate in each case what would be the main points to be discussed.

Subject: Young People's Manners

Controlling ideas:

1. Young people often seem careless and selfish in their manners.
2. Indifference to superficial conventionality today often accompanies the exercise of genuine courtesy.



3. The manners of the younger generation never satisfy their elders.

4. Arrange the following groups of main topics in what you consider the best order, and explain the reasons which govern your arrangement. Is any topic better suited for introductory material?

Subject: The Greatest Need of My Home Town.

Controlling idea: Because of the influence upon the life of the young people, the greatest need of my home town is better amusements.

Main topics:

Effect on young people of seeking amusements elsewhere.

Inadequate nature of amusements.

Indifference of older people to the situation.

The type of amusement that would meet the need.

General prosperity of the town.

Subject: Andrew Jackson.

Controlling idea: Andrew Jackson was an important figure in our political development.

Main topics:

His achievement in preserving the Union.

His personal limitations.

His fundamental strength of character.

His political short-sightedness in fostering the spoils system.

Subject: The Evils of Examinations.

Controlling idea: Examinations are not only useless but injurious to the students.

Main topics:

Unfairness of examinations as a test of knowledge.

The nervous strain of taking examinations.

The bad mental effects of cramming.

The urgent nature of the matter.

The general feeling of students.

5. Arrange the following headings in the form of an outline for a theme on The Advantages of Foreign Travel.

Change of scene.

Increased knowledge of geography and history.

Social.

Educational.

Acquaintance with different types of people.

Opportunity for acquaintance with foreign languages.

Varied and different amusement.

Opportunities to visit picture galleries and museums.

Recreational.

Contact with different manners.

Background for reading.

Chance to observe different industries and forms of culture.

Pleasure in seeing strange sights.

6. Make an outline from the following list of topics for a theme on The High School as Preparation for College. When necessary, make changes in phrasing and supply headings under which topics may be grouped. Omit any points that seem irrelevant.

Getting college point of view in class.

Developing school spirit.

Work of teachers with college training.

Special teachers.

Learning good sportsmanship.

Opportunities for star athletes in college.

Increased responsibility in high school.

Greater emphasis upon reference work.

Learning use of the library.

Need for practice in finding books.

Learning to study without supervision.

Work in high-school organizations.

Work on high-school paper.

Difficulty in getting news in a high school.

7. Make outlines for themes on some of the subjects chosen from the list in 2. Write the introduction for one of the longer themes and indicate in the outline what topics would be developed into paragraphs.

8. Develop one of your outlines into a theme.

## CHAPTER II

### ORAL EXPOSITION

AFTER the outline is made for a theme, a very useful preliminary to the work of writing it is to talk it to a definite audience. This plan has the double advantage of affording practice in presenting material and also of testing its effectiveness. It thus at once brings our effort out of the vagueness which may characterize an explanation intended for the hypothetical average reader, and forces us to adapt ourselves to a group of real people. With such an audience we shall quickly become aware of any weakness in our preparation. If the outline is inadequate, there is no opportunity to rearrange the order or change the proportions after we begin the delivery of our speech. We must abide by the consequences of our careless planning.

Oral exposition has a value in itself as well as serving as preparation for written work. The occasions for informal talks and speeches of various kinds are numerous, and whatever gives training for these needs is useful. In all oral work special attention must be given to the demands of clearness. A reader is at liberty to turn back and reread a passage that he has not understood, but a listener must get the idea and its connection with other ideas at a single hearing. For

this reason careful use of transitions is imperative. In material of any complexity we must let the listener know at the beginning the order of development to be followed, and we must also employ guide-posts in the form of transition words and phrases to help him understand just what place has been reached at each stage of the explanation. An awkward repetition of the same transition expression, such as "then," "next," or "after this," produces an unpleasant effect, but if we take a little pains we shall be able to secure variety. As we think over addresses that we have heard, we discover that we remember longest those in which the speaker showed clearly at the beginning the phases of the subject he expected to discuss, kept us aware of the point he was considering at each moment, and at the close summarized briefly the ground he had covered. To fix our oral exposition in the minds of our hearers we must use the same devices.

**Style.**—No set rules can be given for style in oral exposition, but the phrasing of speech is normally less elaborate than that of written discourse. A common fault is the use of long, stringy compound sentences, apparently without beginning and without end. We should remember that "and" and "but" cannot indicate all possible shades of relationship, and that subordinate ideas must be given subordinate construction in the sentence. Moreover, the listener should know when the end of a spoken sentence is reached as well as if he saw the period. Another common fault is monotony of phrasing and of sentence structure. Short, choppy sentences are almost as unpleasant, though perhaps not

as destructive of clearness, as long, stringy ones. We should guard against awkward repetition of words, especially those that are already in the listener's mind and need no special emphasis. Colloquialisms are not to be avoided, but they must be colloquialisms that are grammatically correct. We shall offend no one's taste if in an informal talk we say "I don't know," but we must guard against "He don't know." In general, our best assurance of using correct English in an assignment in oral composition is the habit of using correct forms in ordinary conversation. If our campus talk is full of slang and careless phrasing, we shall not gain control of a correct vocabulary as soon as we must give a talk before a class. The best expository speech will have the informality which characterizes the conversation of people of culture, combined with the careful arrangement and organization of the well-planned theme.

**Delivery.**—Part of the effectiveness of the talk always depends upon the manner of the speaker. Unless we look directly at our audience we can hardly hope to hold its attention. We must stand straight and modulate the voice carefully. The unfortunate habit of closing sentences with the rising inflection is one that may become fixed before we realize it. If we use notes they should be on small cards that we can hold easily in one hand. If we have made adequate preparation, a brief outline is all that is necessary. The more we can forget about our notes the better we shall succeed, for most listeners are annoyed by a speaker whose attention is constantly drawn away from them in an effort to catch the words written upon his cards.

**The Illustrated Talk.**—There is one type of oral assignment which differs considerably from the ordinary exposition. This is the Illustrated Talk, which combines talking with the display of some sort of illustrative material. The explanation of a process is of this type when we not only tell how to do a thing, but perform the work ourselves to illustrate our explanation. Mending an automobile tire, packing a school luncheon, using a kodak, trimming a hat, sharpening tools, grafting trees, arranging flowers, are all processes which may be shown before a class. Talks on other kinds of subjects may be illustrated by the display of material without the performance of any process. Among these are the travel talk, in which the speaker shows maps, pictures, or souvenirs to add interest and give a clearer idea of the places he is describing; the account of the life of a distinguished person, accompanied by pictures of the subject, places connected with his life, and, if he be an author, scenes from his books; the plan for a house or garden, with diagrams and pictures to show the arrangement; the explanation of a machine, with suitable models and drawings; the discussion of the development of some familiar invention, such as the alphabet, the telephone, the radio; the talk on the identification of birds or plants or trees.

A few practical points must be remembered about the use of material. We shall miss our effect if we hold our illustrations in such a position that the audience cannot see them, or if they are so small that the details are indistinct. Again, we may lose the interest of our hearers if we simply present one illustration after another



without having anything to say about them, or with monotonous repetition of such phrases as "Here is another," or "Then we find this picture." If we are explaining a process which requires considerable time for illustration, we must have something to say while we are performing the process. Always we should remember that the talk is the main interest. We should make the material illustrate the various points in the talk, and not permit the talk to become a mere series of labels for the objects displayed. Finally, the time to be given to an illustrated talk is usually limited. It is almost impossible, unless we have had much experience, to estimate the number of minutes certain material will occupy. We must rehearse our speech aloud and time ourselves if we expect to stay within bounds.

Oral composition brings out all the resources at our command. It has an added value in the opportunity it gives us not only to address our material to a specific audience, but also to have the audience before us and to get its immediate reactions. It demands insistently the ideals which are important for all exposition: careful thinking, adequate organization, clear development, and interesting presentation.

## EXERCISES FOR CHAPTER II

1. Prepare for presentation before the class the material included in the outline of one of the themes in the preceding chapter.
2. Prepare a talk on some matter of political interest now before the public.
3. Prepare a talk on a topic of general campus interest.
4. Prepare a talk that will occupy from three to five minutes on one of the following topics:

The Last Novel I Read  
 How a College Student Should Spend Sunday  
 The Most Interesting Thing I Ever Saw  
 The Work of the Y. M. C. A. at the Opening of the  
     College Year  
 Finding Classrooms the First Day  
 The Most Important Person in My Town  
 The Feelings of a Freshman  
 How to Make Oxygen  
 The Most Interesting Person I Ever Met.

5. Prepare an illustrated talk on one of the following or on some similar subject.

The Proper Conditions for Taking Snapshots  
 Birds of My Neighborhood  
 Rocky Mountain Flowers  
 Our Campus  
 The Elizabethan Stage  
 China Painting  
 The Treatment of the Madonna in the Work of Various  
     Artists  
 Oriental Rugs  
 The Life of Shakespeare  
 How to Recognize Mushrooms  
 An Ocean Voyage  
 Some Customs of the Alaska Indians  
 How to Make a Concrete Sidewalk  
 How to Build a Workshop  
 Installing an Amateur Radio Set

## CHAPTER III

### THE PARAGRAPH

As HAS been pointed out in an earlier section,<sup>1</sup> the paragraph is the unit of structure. The method of fitting such structural units together into larger units has been discussed. It is true that paragraphs occur normally in related groups, but under some conditions isolated paragraphs are complete in themselves without reference to any group. In either case the paragraph must include the material used in the development of one topic, whether that topic stands alone or whether it is one of several topics that together make up a larger discussion. Except for needed transition material in the latter instance, there is little difference in the two types. The point to be kept in mind is that the paragraph must treat of one clearly marked topic, and that, except in such forms as transition, introductory, and concluding paragraphs, it must develop the topic.

**Topic Sentence.**—For the expository paragraph it is usually advisable to phrase as a sentence the idea to be developed. This will give the same aid in securing paragraph unity that the statement of the controlling idea gives to the entire theme.

Although this formulation of a topic sentence is al-

<sup>1</sup> See page 21.

most always desirable for the writer, it is not always necessary that it be included as part of the paragraph. Sometimes, instead of standing by itself, the topic may be introduced in a sentence that has a share in the actual development; sometimes, in a related paragraph, it may be placed in the transition sentence; occasionally, it is not directly expressed. The inexperienced writer, however, may consider the normal expository paragraph as one with the topic sentence definitely stated at the beginning or very near the beginning. The following paragraphs illustrate various methods of managing the topic sentence.

#### Formal topic sentence at the beginning:

Photographs have the kind of authority over imagination today, which the printed word had yesterday, and the spoken word before that. They seem utterly real. They come, we imagine, directly to us without human meddling, and they are the most effortless food for the mind conceivable. Any description in words, or even any inert picture, requires an effort of memory before a picture exists in the mind. But on the screen the whole process of observing, describing, reporting, and then imagining, has been accomplished for you. Without more trouble than is needed to stay awake the result which your imagination is always aiming at is reeled off on the screen. The shadowy idea becomes vivid; your hazy notion, let us say, of the Ku-Klux Klan, thanks to Mr. Griffiths, takes vivid shape when you see the "Birth of a Nation." Historically it may be the wrong shape, morally it may be a pernicious shape, but it is a shape, and I doubt whether anyone who has seen the film and does not know more about the Ku-Klux Klan than Mr. Griffiths, will ever hear the name again without seeing those white horsemen.<sup>1</sup>

#### Statement of topic combined with development:

All through my boyhood and youth, I was known and pointed out for the pattern of an idler; and yet I was always busy on my

<sup>1</sup> From *Public Opinion*, by Walter Lippmann. Copyright, 1922, by Harcourt, Brace & Co., Inc.

own private end, which was to learn to write. I kept always two books in my pocket, one to read, one to write in. As I walked, my mind was busy fitting what I saw with appropriate words; when I sat by the roadside, I would either read, or a pencil and a penny version book would be in my hand, to note down the features of the scene or to commemorate some halting stanzas. Thus I lived with words. And what I thus wrote was for no ulterior use, it was written consciously for practice. It was not so much that I wished to be an author (though I wished that too) as that I had vowed that I would learn to write. That was a proficiency that tempted me; and I practiced to acquire it, as men learn to whittle, in a wager with myself. Description was the principal field of my experiences, for to anyone with senses there is always something worth describing, and town and country are but one continuous subject. But I worked in other ways also; often accompanied my walks with dramatic dialogues in which I played many parts; and often exercised myself in writing down conversations from memory.<sup>1</sup>

### Topic contained in transition sentence:

For in Italy, as in Spain, there is no gulf set between the rich and poor. What these lands lack in practical philanthropy is atoned for by a sweet and universal friendliness of demeanor, and by a prompt recognition of rights. It would be hard to find in England or in America such tattered rags, such gaunt faces and hungry eyes; but it would be impossible to find in Italy or in Spain a church where rags are relegated to some inconspicuous and appropriate background. The Roman beggar jostles—but jostles urbanely—the Roman prince; the noblest and the lowliest kneel side by side in the cathedral at Seville. I have heard much all my life about the spirit of equality, and I have listened to fluent sermons, designed to prove that Christians, impelled by supernatural grace, love this equality with especial fervor; but I have never seen its practical working, save in the churches of southern Europe. There tired mothers hush their babies to sleep, and wan children play at ease in their Father's house. There I have been privileged to stand for hours, during long and beautiful services, because the only available

<sup>1</sup> From "A College Magazine," by Robert Louis Stevenson. Used by permission of the publishers, Charles Scribner's Sons.

chairs had been appropriated by forlorn creatures who would not have been permitted to intrude into the guarded pews at home.<sup>1</sup>

### Statement of topic at close:

Ours is a commercial age, in which most people are bent on getting money. That is a platitude. It is also, intellectually speaking, a materialistic age, when most of our intellectual power is given either to prophylaxis, or to industrial chemistry, or to the invention of physical conveniences—all ultimately concerned with the body. Even the philanthropists deal with the soul through the body, and Christianity has long since become "muscular." How, in such an age, can culture flourish—culture, which cares even more about the spirit than about the flesh? It was pointed out not long ago, in an *Atlantic* article, that many of our greatest minds have dwelt in bodies that our eugenists would have legislated out of existence. Many of the greatest saints found sainthood precisely in denying the power of the ailing flesh to restrict the soul. There is more in the great mystics than psychiatry will ever account for. But science, in spite of its vistas, is short-sighted. It talks in æons, but keeps its eye well screwed to the microscope. The geologic ages are dealt with by pick and hammer, and reduced to slides, and the lore of the stars has become a pure matter of mathematical formulæ. Human welfare is a question of microbes. Neither pundit nor populace cares, at the present day, for perspectives. The past is discredited because it is not modern. Not to be modern is the great sin.<sup>2</sup>

**Methods of Development.**—After the topic sentence is clearly formulated, the next question is the method of development. Various classifications are possible, but the methods really fall into three groups: those which give details about the content of the idea itself;

<sup>1</sup> From "The Beggar's Pouch," in *Compromises*, by Agnes Repplier. Used by permission of, and by arrangement with, the publishers, Houghton Mifflin Company.

<sup>2</sup> From "The Extirpation of Culture," in *Modes and Morals*, by Katherine Fullerton Gerould. Used by permission of the publishers, Charles Scribner's Sons.



those which compare or contrast it with other ideas; and those which emphasize it by repeating it in varied phrasing. Often two or three methods are employed in one paragraph.

A not uncommon variation of the first form is the paragraph which begins with negative statements intended to correct wrong impressions and concludes with positive development. Thus the following paragraph first tells what poetry is not and then explains its real nature.

What is poetry? The question appears quickly with no quick and cogent answer accompanying it. In the way of the spirit we can reach a common meaning; in the way of the letter, probably not. For poetry has as yet eluded definition. Those marks that commonly seem to distinguish it fail as touchstones when we make the final test. Poetry lies not solely in the use of metre—is not the English translation of Job a poem? not in continuous felicity of style—is not Wordsworth a poet? not in a great theme nor in a deep conception—is not some of the most beautiful poetry as irresponsible as a flower? Such qualities are, to be sure, oftenest present in poetry, but they do not separately ensure the name of poetry to the writings in which they appear. Poems succeed by virtue of something other than the outward and visible sign, and each of us preserves in his heart his criterion, the inward and spiritual grace. That which indefinably touches us is poetry to us, though to others it be doggerel or rant. That which others proclaim great or beautiful is not poetry to us if it does not wind its way into our souls. In the main, because we are like one another, we agree; and when we agree that the thing which has spoken to us is poetry, then truly it is poetry—for who else shall judge? The poet writes for the world to read, and when the world is deeply touched and again and again reaffirms its judgment, it has given in its practical way an answer to our question. The answer is not a definition: we may define it if we can.<sup>1</sup>

<sup>1</sup> From "Poetry," by Martin Wright Sampson. Printed in *Essays and Studies*, collected by Frederick M. Smith. Used by permission of, and by arrangement with, the publishers, Houghton Mifflin Company.

This paragraph from an essay on the "Luxury of Conversation" is developed in part by a contrast between conversation and a different type of informal speech, story-telling:

Perhaps the saddest proof of intellectual inertia, of our failure to meet one another with ease and understanding, is the tendency to replace conversation by story-telling. It is no uncommon thing to hear a man praised as a good talker, when he is really a good raconteur. People will speak complacently of a "brilliant dinner," at which strings of anecdotes, disconnected and illegitimate, have usurped the field, to the total exclusion of ideas. After an entertainment of this order—like a feast of buns and barley sugar—we retire with mental indigestion for a fortnight. That it should be relished betrays the crudeness of social conditions. "Of all the bores," writes De Quincy with unwonted ill-temper, "whom man in his folly hesitates to hang, and Heaven in its mysterious wisdom suffers to propagate his species, the most insufferable is the teller of good stories." This is a hard saying. The story, like its second cousin the lie, has a sphere of usefulness. It is a help in moments of emergency, and it serves admirably to illustrate a text. But it is not, and never can be, a substitute for conversation. People equipped with reason, sentiment, and a vocabulary should have something to talk about, some common ground on which they can meet, and penetrate into one another's minds. The exquisite pleasure of interchanging ideas, of awakening to suggestions, of finding sympathy and companionship, is as remote from the languid amusement yielded by story-telling as a good play is remote from the bald diversion of the music hall.<sup>1</sup>

In the following paragraph the chief method of development is repetition in somewhat varied phrasing of the idea expressed in the first sentence:

But of a Great Man especially, of him I will venture to assert that it is incredible he should have been other than true. It seems

<sup>1</sup> From "The Luxury of Conversation," in *Compromises*, by Agnes Repplier. Used by permission of, and by arrangement with, the publishers, Houghton Mifflin Company.

to me the primary foundation of him, and of all that can lie in him, this. No Mirabeau, Napoleon, Burns, Cromwell, no man adequate to do anything, but is first of all in right earnest about it; what I call a sincere man. I should say *sincerity*, a deep, great, genuine sincerity, is the first characteristic of all men in any way heroic. Not the sincerity that calls itself sincere; ah no, that is a very poor matter indeed;—a shallow braggart conscious sincerity; oftenest self-conceit mainly. The Great Man's sincerity is of the kind he cannot speak of, is not conscious of; nay, I suppose he is conscious rather of *insincerity*; for what man can walk accurately by the law of truth for one day? No, the Great Man does not boast himself sincere, far from that; perhaps does not ask himself if he is so: I would say rather, his sincerity does not depend on himself; he cannot help being sincere! The great Fact of Existence is great to him. Fly as he will, he cannot get out of the awful presence of this Reality. His mind is so made; he is great by that, first of all. Fearful and wonderful, real as Life, real as Death, is this Universe to him. Though all men should forget its truth, and walk in a vain show, he cannot. At all moments the Flame-image glares in upon him; undeniable, there, there! I wish you to take this as my primary definition of a Great Man. A little man may have this, it is competent to all men that God has made: but a Great Man cannot be without it.<sup>1</sup>

**Rhetorical Principles.**—After the formulation of the topic sentence and the selection of the method or methods of development, the next task is the writing of the paragraph. Obedience to the rhetorical principles of unity, coherence, and emphasis is as necessary here as in the theme. The suggestions given with reference to the whole theme may be applied to the paragraph. As in the interest of unity everything not contributing to the controlling idea must be excluded from the theme, so everything not contributing to the development of the topic must be excluded from the paragraph.

<sup>1</sup> From *The Hero as Prophet*, by Thomas Carlyle.

Coherence in the paragraph, as in the theme, is indicated by the order of the parts and by the use of transition words and phrases. This arrangement, however, is of value only as it represents a very real relationship of the parts to one another and to the whole topic. Emphasis in the paragraph depends upon the fuller development of the more important details and the arrangement of material to secure emphatic positions for significant statements.

## EXERCISES FOR CHAPTER III

1. Find the topic sentence and discuss the method of development of the paragraphs on pages 113 to 121.
2. Study the order of sentences in the first paragraphs of "A Soliloquy on Voting," page 191; "The American Empire," page 196, and "The Iron Man," page 218. Could the sentences be arranged as well in any other order?
3. What methods are used to hold the sentences together in the first two paragraphs of this chapter?
4. Write a paragraph to illustrate each method of development mentioned on pages 41 and 42.
5. Develop the following topic sentences into paragraphs and tell what methods are used:

The students in our house often find it difficult to study.  
Football is a more exciting game than basket-ball.

People often display unexpected traits of character when traveling.

The study of chemistry gives a new conception of common things.

Roosevelt was like a dynamo in energy.

Every boy should have some work in manual training.

Bobbed hair is more generally becoming to girls than long hair.

Some books are like soda-water.

Most car accidents are caused by reckless driving.

The movies have increased our knowledge of geography.

## EXPOSITORY WRITING

The radio carries the human voice better than the phonograph record.

The Ford car has increased the opportunities for pleasure in many families.

The study of a foreign language improves one's knowledge of English.

## CHAPTER IV

### THE STUDY OF AN ARTICLE

ABILITY to read intelligently is of course assumed for educated people, yet it is an ability which not all first-year college students possess. It implies not only clear understanding of details, but a sense of their relationship and the significance of their order and grouping. Since most of our studying involves textbooks, this power proves the best aid to effective study. Various careless thought habits interfere with intelligent reading. One is the habit of sliding over words which are either vaguely understood or not understood at all. Another is failure to make ourselves see how sentences are constructed, especially if there is anything at all puzzling about their make-up. A third is failure to discover what the more general phases of the subject really are. For this last difficulty there is no help superior to the practice of outlining. Since, however, it is impossible to outline what we do not understand, we must make a very careful preliminary reading.

**The Outline.**—Finding the outline in an article read is the reverse process to writing a theme from an outline we have made. That is, instead of developing topics so as to give them the relationships decided on in the plan, we try to discover from the way the relationships are



indicated what plan the writer has followed. First of all we must find the limits of the body of the article. Usually it has an introduction, which may cover one paragraph or several, and usually at least the last paragraph is conclusion. Since the writer's purpose has evidently helped to determine his choice of material, we try next to phrase his controlling idea in a form which is definite and still inclusive enough to cover all phases of the article. Now we are ready to find the large divisions, each of which is a group of paragraphs dealing with a particular phase of the subject. Then each of these breaks up into smaller groups, and finally into paragraph topics. At this point, if topics have been discovered which at once accurately cover the material of the various sections and show how they are related to the larger whole of which each is a part, we have a satisfactory outline, and what is of far more value, we have a grasp of the subject discussed in all its bearings and relationships that will stay in the memory, that can be reproduced, and that can be developed at will with proper fitting in of detail. If the paragraphs are very long or difficult, it may be well to indicate their division or content by definite topics. A satisfactory means of approach with very difficult material is first to find summary sentences for the paragraphs and from these discover the natural groupings.

Fortunately, most writers give us some direct help in discovering their plans. Often the introduction is of the outline type, stating definitely the points that are to be treated in the order in which they are to be taken up. Whether it does this or not, a careful reading of the

introduction will generally help us in working out the structure of what follows. In the body itself, if we read attentively, we discover guide-posts, called transitions, and definite announcements of the topic to be developed in the succeeding paragraph group that will materially lighten our task of discovering what the writer is doing with his subject. Our own struggles in gaining coherence and firmness of texture in our work will aid us now in recognizing skilled use of the various devices and make it easier for us to find and indicate relationships in a well-constructed piece of exposition.

**The Abstract or Précis.**—Sometimes we are obliged to reproduce the substance of something we have read. To do so satisfactorily involves not only a complete understanding of what has been read, but a degree of skill in forming and joining sentences. Nothing can be better practice.

The first thing to decide is the length of the summary in comparison to the length of the article—in other words, the scale upon which the reproduction is to be made. It is very much the principle we follow in drawing a map, but of course not so mechanically accurate. We can see at once the usefulness of having a preliminary outline at least very clearly in our minds, if not written out on paper. Suppose an article of a thousand words is to be summarized in a hundred. Nothing can be done except to state and join together the main phases of the treatment. Twice as many words of summary will give opportunity for mention of some of the most important subtopics, and so on. Development is to be omitted, especially illustrative

and descriptive detail; often a number of details can be condensed into a summarizing sentence. Main topics are, of course, always expressed, for they give form to the summary and hold it clearly to its controlling idea. With them goes as much of the essential and valuable detail as space permits. Perhaps the most useful proportion when we have a choice is to treat main divisions in the original as paragraph topics in the abstract.

As was hinted above, the training in sentence formation offered by the work is valuable. Short, simple sentences are wasteful of words and incoherent in effect. Since most of the value to the reader lies in the faithfulness with which the relationships of the original article are indicated, it is evident that each sentence must carry as much detail as possible and that this should be clearly and accurately subordinated. In general a successful summary requires long complex sentences clearly phrased and following one another smoothly.

The words we use are likewise important. We should, for effective summarizing, practically rephrase the article. This is necessary not only to prove our grasp of the meaning, but to give the meaning accurately, for developed thought can always be expressed in quite different terms from condensed thought. Since the summary is admittedly second-hand, no question of plagiarism or honesty is involved; yet it pays to cultivate the feeling of independence and self-reliance that comes from the practice of saying things for our-

selves. This ability will be profitable under all circumstances.

To illustrate the preceding discussion we might make a study of this chapter up to this point. Words will probably give no trouble, although we need to be sure of the *exact* meaning of "assumed," for example, "significance," "plagiarism," and "essential." As the sentence structure is uncomplicated, it requires no study. The controlling idea is evident: To discover the structure of an article and reproduce it in our own words is the surest way to understand it. There is an introduction; it covers the first paragraph. There is no conclusion. The two main divisions are indicated by topics according to the benevolent practice of writers of textbooks.

Suppose we were planning a reproduction on the scale of approximately one-third—about 250 or 300 words, that is to say, in three paragraphs. The outline would look something like this. However the expression may differ, the substance will have to be the same.

Introduction: Difficulties in the way of intelligent reading.

Body:

I Outlining material read

A Finding relationships

- 1 Distinguishing introduction and conclusion
- 2 Recognizing large divisions and paragraph groups

B Making use of helps given by writer in general form and connections

## II Making an abstract

A Effect of difference in scale

B Important features of the development

1 Using effective sentences

2 Using one's own words

The following is an abstract on the specified scale, about fifty words for introduction and one hundred or so for each main topic:

If we are to understand what we read, we must form careful study habits, such as always being sure of the exact meaning of words and the syntax of sentences. Probably the most important habit is noticing the divisions of the material or the main points in a lesson or an article. A good way to find these is to make an outline.

In outlining an article we of course work backward through the finished product, first distinguishing the introduction and the conclusion, if either be present, from the body of the article, and putting into words what seems to be the controlling idea. Then we block the body into large paragraph groups, then into smaller ones within those, and finally into separate paragraphs, finding topics to cover the material in each case, and arranging them so as to make clear their proper relations. Sometimes it is better to begin with paragraph topics and make the groupings from them. Generally the wording of the article will give us help in the form of an outline introduction, the definite announcement of topics to be discussed, or transitional expressions.

An abstract is the development of such an outline or plan, whether written or not, on a definitely determined scale, smaller than that of the original, with as much of developing detail as we can include, beginning with the most important and selecting according to the space we have to fill. For this purpose it is desirable to use long, smooth sentences which show as much subordination as possible and are as free as possible from unessential words, also a

fresh, individual vocabulary, independent of the original—so that the abstract shall furnish good practice in sentence structure and in phrasing as well as in reproducing thought accurately and concisely.

## EXERCISES FOR CHAPTER IV

1. Most of the articles in Part II are suitable for outlining and summarizing. If they are too long, sections may be taken from them.
2. Study the transition devices used in "In Praise of Brick and Oak," page 147. Note the effect of leaving them out.



## CHAPTER V

### CLASSIFICATION AND DIVISION

**Classification.**—The scientist's method of handling the vast accumulation of facts contained in his science is to classify them. That is, he gathers them into groups according to their characteristics. He has thus discovered the nature, and in some cases the causes, of likenesses and differences, and has produced a magnificently ordered system, in which every fact or discovery finds its place. By the use of some such method a writer confronted with the task of discussing a large number of individual details may bring order and coherence into the mass.

For instance, in planning a theme on "Responsibilities of a Freshman" we need first of all to decide on a classification. We soon discover that there is considerable choice. For example, we may consider responsibilities to the school, to ourselves, to our parents. Again, we may consider responsibilities for our conduct now and in preparation for the future; or yet again, social responsibilities and personal responsibilities. In the first case we are classifying according to the people affected by our conduct; in the second, according to the time when the responsibilities operate; in the third, according to the nature of the responsibilities themselves. The

consideration followed in making up our classes we call a *principle of classification*.

The value of having such a principle in science is immediately obvious. In botany, for example, the great principle of ability to bear seeds must be applied to every individual plant classified, whatever its appearance or other characteristics, and so on with some invariable factor throughout the subclasses, genera, and species. For our humbler purposes also the clear action of a principle is necessary. If we are writing about "The People of My Town" and have the topics, "Poor people," "Rich people," "Working people," and "Business men," we can see at once that we are likely to want to talk about the same people at different times. To do so will produce a confused impression and lead probably to most undesirable wordiness and repetition in our theme. At once we realize that the difficulty results from trying to classify in two ways at once: according to wealth and according to occupation. In a classification of college students as studious, athletic, and mediocre, two principles are again involved: interest, and ability or achievement. Clearness and effectiveness come with recognition of the exact way we have chosen to view our material. To avoid overlapping of topics, then, the rule is: Be sure that there is only one principle of classification and that it is absolutely clear.

From the nature of things, our material frequently falls into two or three well-marked classes. We might be planning to write on "The Attitude of My Town toward Sunday Movies" and begin thus: "Attitude of church people," "Attitude of business men." Here we

should stop, realizing that the topics overlap. As a matter of fact they will overlap whatever arrangement is tried except one—"Attitude of church-goers" and "Attitude of those outside the church." By their very nature some topics require the formula, "This kind, and all others." There are likewise classifications that take naturally the form of two extremes and a mean, as the aristocracy, the proletariat, the middle class; the painfully prompt, the always late, and those usually on time.

From what has gone before we see that there are two kinds of classification. We can readily illustrate the difference in the treatment of the same material. Thinking of people in general, we can classify them according to race, according to color, according to nationality, or, following the practice of some scientists, according to the shape of the head, or the language native to them. On the other hand, we may classify people we know in imitation of Gillett Burgess's "bromides" and "sulphites," or Robert Gay's "vegetals" and "zoögens," or Matthew Arnold's famous "Barbarians, Philistines, and Populace." The first method is scientific, or formal; the second, literary, or informal. Naturally it is with the second that we are primarily concerned. As a matter of fact, exhaustive classification, as an end in itself, is not advisable for themes since it leaves almost nothing to development. For instance, after we have made an accurate grouping of various college sports, what is there to say, unless the controlling idea has thrown special emphasis on some part or given a hint as to the writer's attitude? Our principal interest

in composition is to form ideas for ourselves and express them in our own way. It goes without saying, of course, that however fanciful or individual the principle followed, an informal classification should be as free as the formal from overlapping topics.

**Division.**—Not always is our material of the kind that requires to be grouped. Sometimes we are dealing with a general whole which we think of as single. That is the case when we discuss some country or some people, like an Indian tribe, or some occasion like Armistice Day or The Country Fair, or some institution like the Ku-Klux Klan. What we want to do with such subjects is to divide them and treat separate phases one after the other. Again we have two kinds of division, formal and informal. An encyclopedia discussion of China attempts to cover every phase of the external life of the people, furnishing accurate information on each. A theme on Chinatown in San Francisco touches on various topics, mostly of picturesque interest. Yet both pieces of writing exemplify division. In the theme the controlling principle is the writer's interest or his individual purpose. So two articles might be written on the airplane, one giving as nearly as possible a complete discussion, with more or less definite detail, of the principles embodied in this means of travel, the structure of the machine and development of its possibilities, the other touching on points of popular interest such as the romance of the early attempts at flight, the use in the war, the speed now attained, and the recent spectacular flights. In writing of a novel one person might discuss seriously and carefully all the technical questions

of style, character handling, setting, and plot, while another might comment upon the success with humorous characters, the lack of definiteness in background, and the autobiographic element.

It is evident that much, perhaps most, of our writing and planning is of this selective sort. The danger of overlapping topics is probably less than in classification, but it does exist. What we must guard against is attempting a subject too large for our space, so that the topics selected are too remote from one another to give a coherent effect. Though under some circumstances a rather miscellaneous treatment is allowable, usually, as has been earlier emphasized in our study, a topic should be restricted enough so that we can give continuous and close-knit development to bring out a definite controlling idea.

Classification and division are often considered together as forms of analysis.

### EXERCISES FOR CHAPTER V

1. Study the system of classification or division used in the following articles. State the principle of classification where there is one. Which are formal and which informal?

Biography, page 122.

Barbarians à la Mode, page 251.

The Quaintness of Mr. Crothers (first paragraph), page 270.

The triumph of Greek, page 275.

The Bank Cashier and His Customers, page 308.

How the Meaning of Words Changes, page 314.

The College Man's Ethics, page 316.

2. One or more of the following classifications may contain overlapping topics. Distinguish these and tell what two or

three principles are operating. State the principle for each correct classification.

## Country School-teachers:

Competent.

Mercenary—concerned only with pay.

Interested in pupils and in the community life.

Incompetent—without the requisite preparation.

## Woes of the Freshman:

In the classroom.

At the dormitory.

On the campus.

In the town.

## Duties of a Salesman:

To his employer.

To the public.

Personal appearance and manners.

Disagreeable side of the work.

3. Make outlines for themes on these subjects, following in each case the principle suggested.

Common Fears (motive or explanation behind each, or the way it shows itself).

Tourists in a mountain country (interests shown).

Means of Transportation (time—in older days and now).

The Best Place to Spend Vacation (tastes involved in choice).

Popular Heroes (field of achievement).

Dogs in Our Neighborhood (intelligence shown).

The Cooling Systems in Automobiles (the engine used).

4. Choose one of the preceding subjects and develop it into a theme of 500 to 600 words.



## CHAPTER VI

### DEFINITION

WHEN we were children in the grades, we acquired the habit of using the dictionary to find what words mean. Throughout our lives the question "What does it mean?" will continue to be the most constant whenever we are confronted with an unfamiliar term or statement. From its derivation "define" means to fix boundaries or limits. We look up a definition, then, to determine the exact use of a word so as to employ it accurately, or, in the case of a vague term, so as to know just how much territory it legitimately covers, how wide a use we may give to it.

**Logical Definition.**—The two processes involved in logical definition are placing the term to be defined in a class and distinguishing it from all other members of the same class. That defining is not an easy task can be readily proved by experiment with such common words as "automobile" and "piano." The two parts of a definition are commonly known as the *genus* and the *differentia*, and the regular form is a statement such as: "Parallel construction is a method of phrasing in a sentence or in successive sentences of a paragraph, whereby ideas which have the same value and are used in the same way are given the same form." Here the genus

is "a method of phrasing in a sentence or in successive sentences of a paragraph." The rest of the statement embodies the differentia, which shows the exact difference between a sentence with parallel structure and one without. The test of a definition is completeness and distinctiveness. That is, it must not exclude any instance which the term may cover, and it must include nothing more than the term includes.

The class or genus should be as small as possible, since that will lessen the number of differentia and simplify the task of giving an exact meaning. Sometimes even an adjective may be used to narrow it. We have a better start in placing "French horn," for example, if, instead of putting it in the large class "musical instruments," we narrow the class to "wind instruments"; and defining "reaper" looks more hopeful if we call it not "a machine," but "a piece of farm machinery." That is, the fewer members in a class the easier it is to distinguish our particular term. Yet we should watch to see that the class is not too small. If we classify fiction as a form of prose composition, we are excluding all the verse romances like *The Lady of the Lake* and *Aurora Leigh*.

The differentia should be characteristics clearly belonging to the term, and to no other member of the class. At the same time they should not be so specific as to exclude individual instances covered by the term itself. Thus, the distinguishing characteristics of "car," in the sense of privately owned automobile, should rule out tractor and taxicab, or at least motor-bus, but should leave room for privately owned vehicles driven by

steam or electricity. An attempt to define "literature" should rule out such narrative and descriptive writing as is furnished by popular story magazines and by railroad companies' advertisements, yet include a controversial paper like Dean Swift's "Modest Proposal."

**Extended Definition.**—With terms like "literature" we come to the limits of satisfactory sentence definition. This term is difficult because it involves individual judgment and taste. We are likely to have trouble with words outside the concrete and the realm of science or law, words concerned with human relationships, whose meaning has, like Topsy, "just growed." Yet these words are used every day, often as if they had the most exact significance. The difficulty is increased by the fact that they have accumulated associations so that they are symbols of beliefs or principles liked or disliked, and that their appeal is to the emotions rather than the reason. Such terms Ruskin called "masked words." The danger he pointed out is the carrying over of the clinging mass of association into every use of the term. Another danger is allowing the boundary line between terms to become so blurred that they can be used with quite different meanings at different times. We should try not to call the same thing by different names, or different things by the same name.

It is hard to overestimate the importance of exact definition in a country like ours, where so much depends upon the clear thinking of the citizens and their ability to separate ideas from passion and prejudice. Walter Lippmann in his *Public Opinion* tells of a city campaign in which agitation for an eight-cent fare was branded

as "un-American." People have been found willing to mob a socialist meeting, not because they knew anything about socialism, but because they had connected this theory of government with ideas which they disliked. Words like "tyranny," "personal freedom," "patriotic" have power over our feelings, and so have even colors like "yellow" and "red."

Recognizing this difficulty and the impossibility of accomplishing their purpose with any but clear-cut ideas, careful writers have always started out by defining the vague terms they employ, not trusting to the chance that their readers will happen to use them in the same way. No practice can be more valuable for any of us than to think through the meanings of some of these words and find out what, for us at least, are their real limits. As Henry Seidel Canby puts it, "May the Muse of clear thinking, and the little humorous gods who keep the sense of proportion balancing, protect us" from rigid classifications of living ideas, and also from the indiscriminate use of terms on whose meaning we have not decided.

**Methods of Defining Terms.**—There are various ways of looking at a word to discover its meaning. One is to observe its *etymology*. If we take the word "definition," for example, we see that it comes from the Latin *definire*, meaning to fix boundaries as of an estate. From this the extension of meaning to the limiting of a term is perfectly clear. Sometimes the surroundings amid which a word was born will have a good deal to do with its present atmosphere. Conceptions such as "generosity" or "lady" can be kept apart from irrelevant

virtues that we might like to attach to them, if we remember that both terms were for a long time associated with the nobility, and that they imply a privileged existence for the person of whom they are used. It will help in understanding words like "stoicism" and "sabotage" to know the early histories of the philosophy and the practice they represent.

One of the best means of bringing out sharply the exact characteristics of a term is to distinguish it from another closely related term, as, for instance, "unselfishness" and "generosity," "personality" and "character." A closely similar method is to examine the differentia themselves and explain them by any means in our power. If we hear that slang is "a form of diction which does not originate in the desire to be understood," we are likely to ask, "What does that mean?" and Mr. Henry Bradley, anticipating the question, explains.<sup>1</sup> Sometimes we distinguish the genuine meaning of a term from false ideas that are frequently held. This method, commonly called *elimination*, will be particularly valuable in preparing the way for a clear notion of some controversial term like "Bolshevism" or of one very carelessly used, like "college spirit."

For genuine investigation of a very broad term asso-

<sup>1</sup>In *Encyclopædia Britannica* (11th ed.), article on "Slang": "The slang word is not invented or used because it is in any respect better than the accepted term, but because it is different. No doubt it may accidentally happen that a word which originates as slang is superior in expressiveness to its regular synonym—or that in time it develops a shade of meaning which the ordinary language cannot convey. But when such a word comes to be used mainly on account of its intrinsic merit, and not because it is a wrong word, it is already ceasing to be slang."

ciated with many people like "patriotism" or "college spirit," it is worth while to go into the foundation causes or springs of the sentiment, and to observe what have been the results of its working. Merely to realize that patriotism, far from being confined to our country, is a very old sentiment, that its effects have not always been admirable, that some of its associations at the present time among civilized nations are highly artificial and some are very primitive, will be a start toward clear political thinking.

In considering very broad terms the problem is often simplified by *division*, after which each phase is explained, and, where possible, the meanings are assembled into one whole. Not all vague terms admit of division—"patriotism," for instance, does not—but Viscount Bryce makes "equality" very much clearer than would otherwise be possible by showing in what entirely different senses the word may be used. If we are told that something threatens our liberty, we shall want to know what kind of liberty, personal, political, or religious, is endangered so as to decide what measures to take to preserve it. Possibly we shall find that what is meant is freedom of speech or of the press.

It is very natural and often helpful to bring our abstract ideas into concrete form—to make clear what we mean by "gentleman," for instance, by showing how a gentleman would act in given circumstances, or to help explain "cosmopolitanism" by telling what we think a cosmopolitan is like. This method of *illustration* is too generally useful and well understood to re-



quire discussion. We should, however, remember that it is valuable only for vividness, and is generally too restricted to give complete meaning. The same caution is needed in using the picturesque and interesting method of *analogy*, in which we work out a more or less fanciful comparison between the qualities possessed by the idea we are defining and those of some concrete process or object whose structure or working is simple and obvious enough to help in making the more abstract idea clear. So we might explain "sensory reaction" by comparing the brain and nerves to the parts of a telephone exchange, or "wealth," as Ruskin does, by comparing its action to the flow of water. The principle is really a prosaic use of simile or metaphor.

It is seldom that a developed definition can be satisfactorily worked out with one method; usually we have to employ several, one after the other or in combination. The controlling idea ought to take the form of the clearest logical definition we can frame.

**Explanation of a Proposition.**—As we have seen, there is occasional value in telling what is meant by the whole of a statement or assertion, such as the one mentioned: "Slang does not originate in the desire to be understood." When the assertion or proposition takes a slightly figurative or individual cast, as in "Language is fossil poetry," "Distance lends enchantment to the view," "A rolling stone gathers no moss," the need, or at least the opportunity, for explanatory development is increased. Such an explanation gives excellent subject matter for a theme or an article, since, like analogy, it often approaches the personal essay in style.

## EXERCISES FOR CHAPTER VI

1. Write the best logical definition you can of each of the following terms; then look up the complete definition in an unabridged dictionary or a textbook and compare the two.

electron	telephone
arithmetic	memory (in psychology)
cash register	colloquialism
fiction	science
comma blunder	electrolysis
alien	book

2. Notice the various methods used in the definitions on pages 122 to 136. Which one is nearest to a logical definition?
3. Make a careful outline for a theme on one of the following, using any or all of the suggested methods, and planning on the scale of 800 to 1000 words.

homesickness	patriotism	homemaker (contrast with
college spirit	gentleman	housekeeper)
Americanism	professional	honor
lady	ethics	
generosity	socialism	scientific attitude

4. Write the theme on the corrected outline.
5. Write a theme of about 600 words explaining one of the following propositions:

Dictionaries are condensed history.

A gentleman is a man who is unwilling to inflict pain.

"Architecture is frozen music."

"Coming events cast their shadows before."

"Language is fossil poetry."

"The progressive of today is the conservative of tomorrow."

Cruelty is the child of fear.

"The child is father of the man."

## CHAPTER VII

### THE DICTION OF EXPOSITORY WRITING

SINCE all our writing, reduced to its lowest terms, is a matter of the use of words, we cannot escape the necessity of giving attention to our diction. We shall find, as we consider the words we are in the habit of using, that some fail to justify their presence in our vocabulary, and that others, which may be in themselves admissible, are often inclined to push their way into the wrong place. Finally, we shall probably conclude that our vocabulary is unnecessarily limited, and we shall seek methods for increasing it.

**Good Use.**—Many years ago a writer on rhetoric laid down the law that a word, in order to meet the demands of good use, must be reputable, national, and present, and since that time most discussions of the subject have echoed this list of requirements.

A reputable word is one that conforms to the laws of grammar and good taste. Such crude forms as “ain’t,” “drug” (for the past tense of “drag”), and “gent” (for “gentleman”) have no place in the vocabulary of any educated man or woman. It is not a question of the correct use of these words; there is no correct use for them; they must be banished summarily and finally from our speech.

Less offensive than the terms just mentioned, but still to be generally avoided, are the expressions known as provincialisms. These are phrases peculiar to one section of the country. Since modern means of communication have brought the various parts of our country into close relationship, these provincialisms are spreading so that they may eventually become nationwide colloquialisms, but for the present we shall do well to confine at least our written language to those forms that are recognized throughout the country as correct. We may easily substitute for the "guess" of one section or the "reckon" of another the universally approved "think" or "suppose."

Present use excludes words that have once been in good use and have now gone out, and also those of recent coinage that have not yet won recognition from the best writers and speakers. Many of the newly coined words will in time make a real place for themselves, but many others will have a passing vogue among a limited class and will then disappear. We may be sure that a word which meets a real need of the language will in time win sanction for itself. Not so very many years ago people were declaring that such an awkward term as "automobile" could never be generally accepted as the name for the new horseless carriage. Other words, again, such as "enthuse," have lingered on the edge of respectability for a lifetime and have never won complete recognition. Language is a growing and changing thing, and the fate of a word can hardly be foretold. We cannot greatly hasten or retard its progress toward acceptance, but we can at least de-

termine that it shall not prematurely push itself into our vocabulary.

**Determining Good Use.**—In the preceding paragraphs such words as “recognition,” “usage,” and “acceptance” are frequent. We soon learn that the standing of a word as reputable, national, and present depends not upon anything in the word itself, but upon its use by the best writers and speakers. Manifestly, the most satisfactory way of determining the standing of any word is to trace its employment in the speech of this class, but it is equally evident that no one of us can have acquaintance with enough men and books to apply this test thoroughly. To meet our need, dictionaries have been compiled. A dictionary is merely a record of usage. A word is not made correct by being in the dictionary; it is in the dictionary because it has already won its place through the use of good writers and speakers. The dictionaries, it is true, include some words that have not yet completely acquired this position but are probationers in the language. In a good dictionary they are marked as “slang,” “provincial,” “dialect.” We must then not hastily conclude that we are justified in using any word that we find in the *Century* or the *Standard* or the *International*, but we must look to see whether there is any derogatory abbreviation attached before we give it a place in our vocabulary.

**Words in Combination.**—Thus far we have considered words as isolated units, to be admitted or not on their own merits. A question which goes much farther has to do with the proper employment of words recognized as in themselves acceptable. Here again we

meet a triple demand. Words must not only be acceptable in themselves, but must be so combined that the phrasing shall be correct, clear, and effective.

Correctness in its most limited application requires the use of words in proper grammatical sense. If we forget that the word "due" is an adjective, that "like" is never a conjunction, that "remember" is a transitive verb, we shall violate the principle of correctness with such crudities as the following:

He left college before the close of the year,  
due to his father's illness.

It seemed like I couldn't find time to write  
my theme.

I don't remember of ever seeing him before.

In a broader sense, however, correctness demands accuracy in the use of words and the avoidance of such perversions as frequently occur in slang. Most slang phrases are made up of words in themselves legitimate, but used with such sweeping inclusiveness that their proper meaning is quite forgotten. Such expressions as "I couldn't get by with it," "Can you beat it?" and "Isn't that the limit?" contain no words that are not in themselves correct, but these particular combinations have been so constantly and indiscriminately used that there is no virtue left in them. Other mistakes occur in the use of idioms, peculiarities of the language which no law of grammar can explain. It is their presence that makes the learning of a foreign language so difficult a process. Rules may be memorized, but nothing but familiarity with the language in actual speech



can teach idiom. There is nothing in the nature of things that makes it correct to say, "I hope to hear from you soon," and incorrect to say, "I trust to hear from you soon," but idiom very definitely sanctions the first and condemns the second.

Since exposition is primarily an attempt to explain, to make some idea understood, it follows that a fundamental requirement of expository diction is clearness. No word that is "almost right" will serve our purpose; we must choose one that exactly meets our needs, that conveys the precise shade of meaning. An unfortunate event may seem to us annoying, disturbing, irritating, vexing, maddening. A public situation may impress us as serious, momentous, threatening, ominous, dangerous. In these cases we must choose the word that exactly describes our reaction, not one that will merely "do well enough." We must avoid also the vague use of such general words as "factor," "problem," "element," "portray," "state." Definiteness is one of the imperative demands upon the writer who wishes to make his meaning clear.

A third requirement is effectiveness. Certain expressions once good have become so hackneyed that they can no longer be used without lowering the vitality of any piece of writing. "Each and every," "along this line," and "in this day and age" are good examples. We overwork such terms just because we lack the mental energy to find a phrasing that is really our own. Effective writing, however, requires more than the use of definite, individual phrasing. The language chosen must be appropriate to the subject and to the audience.

W. M. Letts in "Bridge Builders" has a grace of phrasing that would be ill adapted to directions for constructing a material bridge across the Mississippi. The introduction of a word that is out of tone with the general style of an exposition may destroy the whole effect. Such words, for instance, as "rampage" or "snicker" or "tumble" do not belong in a dignified discussion of a serious subject. Moreover, the phrasing must be adapted to the audience for whom it is intended. The explanation of a new chemical theory to a trained scientist contains so many technical terms that it is almost unintelligible to the average reader. The same theory may be phrased in popular, non-scientific language so that the untrained person may gain, if not a very accurate understanding, at least such a general conception as will make future discussions somewhat intelligible. The flood of popular treatment of scientific topics published during the last five years indicates the present interest of the non-technical reader in subjects that must be simplified for his comprehension.

**Increasing the Vocabulary.**—It must be evident that if we are to choose for every need the word that exactly fits it, if we are to employ a diction always appropriate to the subject matter and to the audience, we must have a large store of words at our command. Unless we have several possibilities from which to choose, there is no opportunity for any discrimination in our speech or writing. Hence it becomes imperative for us to discover methods of increasing our working vocabulary.

The first and simplest plan is to use wisely the vocabulary we already possess. We have terms available

which may be used appropriately to commend an idea, a character, a book, a costume, a lecture, a college course, a concert, a scientific discovery, a menu, and a successful experiment; yet it is to be feared that many of us would use one term, perhaps "wonderful," to meet all of these demands. The danger in the less objectionable slang expressions is that their constant use weakens the vocabulary by making one term perform half a dozen different functions. The other five terms, meanwhile, slip back into disuse. There are, moreover, certain phrases which are neither slang nor generally overworked expressions, but which we have given too large a place in our personal vocabulary. If we discover that we have become dependent upon a certain word or group of words, we should temporarily banish it and force ourselves to use other expressions. When we can readmit it as a useful servant and not as a master, we may again give it a place. Such phrases as "to speak frankly," "as a matter of fact," and "personally, I think" are harmless in themselves, but they may have usurped too large a place. Our first suggestion for improving our vocabulary, then, is the deliberate avoidance of overworked phrases.

It is not enough, however, to utilize all the resources at our command; we must add to these resources. There is no new method for doing this. We must apply the combination of study and practice by which we have gained most of our usable knowledge. The starting point for our study is careful observation of the speech and writing of those who employ the language effectively. A new word or a new use of an old

word may suggest a fruitful and fascinating investigation. In this investigation, the dictionary is our invaluable assistant. From this source we may learn the correct pronunciation of the word, its derivation, its various meanings, and often its equivalent in other languages. If the term is provincial, dialect, or slang, we shall find that fact noted.

If the word has heretofore been an entire stranger to us, we shall probably not feel quite ready to use it after hearing or seeing it only once and looking it up in the dictionary. It is surprising how often a word once called to our attention will appear again when our eyes are open for it. If the term is in good general use, we may be almost sure of meeting it again before long, and after seeing it several times and noticing its exact shade of meaning on each occasion, we may be willing to use it ourselves. Generally the additions we make to our own working vocabulary will come not from words which we have recently seen or heard for the first time, but from the large number of words with which we have merely what may be called a recognition-acquaintance. On almost any page we find expressions which we understand well, terms for which we need no dictionary, but which nevertheless have no place in our working vocabulary. From such words as these we shall recruit our feeble forces. The genuinely new words, meantime, will be advancing into our recognition lists and may before long be closer acquaintances. As a rule, we may best use a word from the recognition list the first time in writing. If we feel a bit awkward in

this first attempt, we may find it less embarrassing to intrust the word to paper than to utter it audibly. Presently, if it is a word we really need, we shall use it freely. The general order is from complete unfamiliarity through recognition-acquaintance into the actual working vocabulary.

Not until we have tried it do we realize how fascinating the study of the dictionary may be. The derivation of a word often gives us a sense of its meaning that we could get from no list of synonyms. The knowledge that "enthusiasm" (from the Greek "en," in, and "theos," god) was originally the feeling inspired by a god, by a power that took a man out of himself, that "influence" was a literal flowing upon or into, that "magnanimity" was great-mindedness, may lead to a deeper realization of the significance of these words. The history of such a word as "dunce" brings us into the heart of mediæval scholasticism. "Candidate" takes us back to the customs of ancient Roman days. "Boycott" helps us to interpret the early land situation in Ireland. Perhaps these inner meanings may not appreciably affect our usage, but the glimpses into other times and other ways of thinking will enrich our own thought and indirectly affect our style.

Finally, we must remember that a vocabulary, like most things worth possessing, is the result of slow growth. Of all agencies, the most helpful is our habitual association with speakers and writers whose language has the accuracy, flexibility, and vitality necessary for all truly effective expression.



# DICTION OF EXPOSITORY WRITING 77

## EXERCISES FOR CHAPTER VII

1. Study the diction of "The Social Value of the College-bred," page 259. Make a list of all words which are wholly unfamiliar to you. Make another list of those which you recognize and understand when they are used by others, but which are not in your own working vocabulary. From this recognition-list select the words which you think would be useful additions to your vocabulary, and frame sentences employing them.
2. Compare the diction of "Place for Play," page 190, and "The Cadence of the Crowd," page 278. What differences do you find? How do you account for these differences?
3. Study the diction of the paragraph from Bacon, page 118. What words indicate that the paragraph was written some time ago? Rewrite the selection in the language of today, using informal style but avoiding slang.
4. Compare the diction of the "Ode to a Nightingale" by Keats and "Birches" by Robert Frost. What different conceptions of poetry are suggested by the choice of words in the two selections?
5. Compare the diction of "Barbarians à la Mode" and that of some address or informal talk you have recently heard. What differences are caused by the fact that one was intended for readers and the other for listeners?
6. Learn all you can about the meaning and history of the following words:

orientation	pedagogue	geometry	sandwich
pastor	hyperbole	sterling	candidate
inerrancy	journey	suspense	hypothesis
gerrymander	dejection	Easter	disaster
electricity	umbrella	parasol	Atlantic
infantry	deviation	inspiration	



## CHAPTER VIII

### SOME TYPES OF EXPOSITORY WRITING

ALMOST every type of exposition is an attempt to answer some question. How do you do it? What is the reason? What kind of person is he? What is the significance of that event or experience or situation? These are a few of the questions that every one has to answer. The types of expository writing which are discussed in the following pages are merely replies to such inquiries as these.

#### EXPLANATION OF A PROCESS<sup>1</sup>

The necessity of explaining a process occurs daily. We may be asked to give directions for making anything from a buttonhole to a tennis court, or we may attempt to explain a complicated mechanical process or an operation of nature. Although the material may differ widely, the same general methods are applicable in the directions for performing some simple process and in the attempt to make plain an intricate series of operations.

In any case, the general order to be followed will be

<sup>1</sup> See p. 140, "The Open-Hearth Furnace"; p. 137, "Dry Land."

the chronological, but often certain preliminary information is necessary before the actual steps in the process are given. The directions for making a dress may be prefaced by an estimate of the amount of material needed; the discussion of methods of raising corn by a statement concerning the soil and kind of seed; the explanation of the printing of a book by the description of the printing press; the account of the working of the human mind by a long introductory discussion of the elaborate physiological equipment by means of which the mind functions. It is usually wise to get clearly before the reader or hearer whatever preliminary information is needed before the explanation of the process itself begins.

As has been suggested, the process consists of "steps." We shall do well to analyze our material and consider these successive parts carefully before we begin our explanation. Further, we shall promote clearness if we indicate these steps in the explanation itself. The reader will follow the directions or understand the process much better if he gets it in small, clearly defined units than if he attempts to grasp it as a whole. These parts, however, must be so woven together that the reader will see at a glance the relationship of one part to another and will be conscious of each as contributing to the whole result.

The style and the amount of detail are governed not only by the complexity of the subject matter, but by our purpose and by the needs of the reader. For example, "How to Study" may be a mother's brief directions to a child who is trying to master an elementary

lesson; or it may be a discussion of several hundred pages by a prominent teacher of educational method. Any explanation of a process should be planned and written with a definite audience in mind.

It need hardly be said that directions of the type found in cook books and in specifications of various kinds have no place in a course in learning to write. Valuable and important as these are, they neither indicate nor furnish any special training in the use of English.

Although often the explanation of a process has a strictly utilitarian value, it may give opportunity for informal writing of charm and interest. The attempt to explain an operation, in phrasing that is at once clear and stimulating, affords useful training.

### EXPLANATION OF A REASON<sup>1</sup>

It is only the very incurious person who is long satisfied with knowing "how." The child at an early age learns to ask "Why?" and continues this questioning as long as his mind continues to grow. It is, then, important that we be able to explain reasons as well as processes. When the reason we seek is the actual cause of a familiar situation, the problem assumes a rather different form from that which it has when the reason is the basis for an opinion.

For any situation we know that there must be a cause or causes. There are conditions about us which beg for an explanation. As simple a matter as the fact

<sup>1</sup>See p. 259, "The Social Value of the College-Bred"; p. 147, "In Praise of Brick and Oak."

that one maple tree has brighter autumn foliage than a neighboring tree may lead to an interesting investigation of causes. In human affairs the case is more complex. If one student is more successful than another in his college work, the difference is not always fully explained by the results of the intelligence test. The successful student may owe his superiority to his good health and habits of industry more than to his native ability. It is indeed hardly probable that any one cause alone is an adequate explanation of success. Our problem is to be sure that we consider all the evidence and discover a true cause-and-effect relationship. A discussion of the laws of evidence belongs to argumentation rather than to exposition, but the habit of looking for the facts behind the statement, of analyzing relationships and rejecting unsupported assertions, is a prerequisite of all clear thinking and writing.

Likewise it is valuable discipline for us to discover and formulate the reasons which underlie our own opinions and actions. Our choice of a college, for instance, one of the most significant choices we have ever made, may be the result of a careful consideration of the advantages offered by all the colleges from which we had the opportunity to make our selection. It may be, on the other hand, that we chose our college because it was conveniently located, because some one whom we admire received his degree there, because its football team in a certain year made a good record, or merely because it seemed about as good as any other college. Here, as in many other matters, we may discover that our ideas were based upon nothing that can justly be

called "reasons," but were the result of prejudice or emotional reactions. Our next task may be the formation of a new opinion that rests upon a sounder basis.

Having satisfied ourselves as to the correct explanation of a situation or the reasonable basis for an opinion, we must consider the most effective method of presenting our ideas. When possible we should arrange our points in the order of climax. If we wish to present reasons for considering our college a desirable place for a certain course, we may find that its chief advantages are the following:

- I Its strong general faculty
- II Its reputation
- III The opportunities offered in one particular field

As we consider these points, we shall probably decide that the order given is not the best order for presentation. We may discuss first the reputation, which is probably somewhat familiar to the reader, and then proceed to more detailed comment upon the opportunities offered. If we have a definite reader in view, the desire of that reader may determine the order. For one who is chiefly interested in obtaining as broad cultural training as possible, the strong general faculty may be given the most emphatic position; for one who wishes to secure training in a particular field, the strongest point will be the opportunities in that field.

In other cases the familiar principle of proceeding from the known to the unknown must govern throughout. In presenting the fitness of a candidate for an

office many a political speaker has followed such a plan as this:

- I Facts already known to the audience
- II Additional facts known by those who have had fuller acquaintance with the candidate's career
- III Conclusions from both sets of facts as to his fitness for the office

Usually the order of climax and that of progressive sequence will coincide. We must, then, close with a point that seems to be a logical ending, either because of its strength or because of its inevitability as a consequence of what has preceded.

In our written presentation of reasons we should avoid didacticism of tone and at the same time adapt our explanation to the previous knowledge and mental grasp of the reader. Here, as in all explanation, clearness is the first requisite.

### INTERPRETATION OF A CHARACTER <sup>1</sup>

To us as human beings no subject has greater interest than the character of other human beings—unless it be our own. Humanity is still “the proper study of mankind,” unlimited in its possibilities, unfailing in its appeal. The clothes a man wears, the way he carries himself, his facial expression, his tone of voice, his vocabulary—all these have significance not in themselves, but as indications of the real man.

<sup>1</sup> See p. 162, “La Follette”; p. 170, “The Paradox of Lincoln”; p. 163, “Some Personal Qualities of Francis Parkman.”



There are four types of material available for exercises in character interpretation. The first of these is our own character, a subject concerning which we might be supposed to have specialized knowledge. By examining our own nature we may, however, discover unexpected qualities. We shall do well to follow as far as possible the same method in self-study that we follow in studying others. An act which indicates a weakness in the character of our neighbor we must not interpret as negligible or perhaps a sign of strength in ourselves. From a candid consideration of our words, our acts, our habits, and the reactions of others toward us, we may be able to formulate an impartial judgment.

The second type of material for interpretation is found in the characters of people whom we know. To consider this material uninteresting indicates lack of mental alertness on our part rather than weakness in the person whom we are studying. Here we may be able to follow an objective method more easily than in the study of our own character; but even here there is danger that we may interpret actions in the light of our prejudices.

The third type of material is found in the lives of historical personages or of public figures with whom we have no immediate contact. Here it is important that we read as widely as possible before we attempt to form our own interpretation, and especially that we read authors who have differing opinions of the character in question. A reading of Strachey's *Queen Victoria* may be supplemented by a reading of the more conventional biographies before we pass final judgment

as to the kind of woman the Queen actually was. A study of the life of Lincoln as it is portrayed by the Englishman, Lord Charnwood, will add new light to the conceptions gained from the numerous American biographies. If our subject is a writer or speaker whose work has been printed, we should gain familiarity with his own expression of his ideas.

The fourth type of material is found in characters of fiction or of the drama. An initial advantage in this kind of subject is that we have available all existing material about the character in question. No literary critic has access to more data than the play or novel provides. It is, then, highly important that we use the material for ourselves and do not go to the library to find interpretations of Shylock or Hamlet when the volume of Shakespeare's plays lies on our table. The method of getting our facts is the same that we employ with reference to our acquaintances. We observe in a play the words of the speakers, the effect of their words, and the comments made by their associates. In a novel we have added details of action and some description by the author.

In the development of any of these types it must be kept in mind that our purpose is interpretation of character, not the record of the events in a life. The expository point of view must be maintained. Usually the best plan is to arrange the material with reference to the large characteristics which are to be discussed. Then these may be established and illustrated by the observed facts upon which they rest. Thus from reading the life of Booker T. Washington we may discover

facts that seem to us to indicate the possession of certain characteristics such as resourcefulness, persistence, hopefulness. As we present our interpretation to others, we shall probably base our discussion upon these characteristics in turn and group together in connection with each the material that illustrates it, rather than give a chronological account of Washington's life as would be done in a biographical sketch. If we fall into the chronological order, we shall almost surely come out with a piece of narrative writing instead of exposition. The same considerations hold in the interpretation of characters of persons with whom we are acquainted. We have formed our conception by generalizing from observed facts, but we shall present to the reader these generalizations and group about each the facts that support or illustrate it, avoiding a chronological arrangement of details connected with the person's life or with our association with him. That is, our treatment will again be expository rather than narrative.

#### INTERPRETATION OF AN EVENT, EXPERIENCE, OR SITUATION<sup>1</sup>

Not many of us are satisfied to go through life watching events, or participating in experiences, or sharing situations, without making some effort to interpret them. Nothing happens as a completely isolated unit, but each occurrence gains significance from its relationships as

<sup>1</sup> See p. 179, "Life of a War Correspondent"; p. 200, "Ferguson-Rex"; p. 182, "The Almighty Minute"; p. 251, "Barbarians à la Mode"; p. 237, "The Insects Are Winning"; p. 218, "The Iron Man"; p. 191, "A Soliloquy on Voting"; p. 190, "Place for Play"; p. 196, "The American Empire"; p. 259, "The Social Value of the College-Bred."

well as from its own importance. An apparently trifling incident may be full of meaning because of the light it throws upon the attitude of an influential person, upon the purpose of an organization, upon the relationship of two groups; or it may gain significance as the result of an earlier event, or as the probable cause of a whole series of events.

**Interpretation of Event.**—Among short interpretative articles a familiar type is the editorial. In this the writer often briefly records a happening, or, assuming the reader's knowledge of it, proceeds to analyze its less obvious meanings. What for the general public may seem simple or pass unnoticed may be interpreted by the writer as a matter of great significance, because of its revelation of motives or attitudes or because of its possible far-reaching effects. Conversely, a matter that has caused considerable excitement may be shown as of less actual significance than is generally supposed. A one-paragraph editorial in *The Nation* of April 22, 1925, begins with the statement, "Hindenburg's candidacy for the presidency of Germany is serious." The fact of Hindenburg's candidacy is so well known that no further detail about it is necessary. The editor goes on to show briefly the reasons for Hindenburg's popularity and the unfavorable effect his election would have. Finally he closes with the reminder that Hindenburg, because of his age and political inexperience, and because of the slight influence of the German President, would, after all, be limited in his power to make trouble.

Although we may not occupy editorial chairs, there

are many occasions upon which we wish to express our opinion as to the meaning of happenings about us. Perhaps our college has recently dedicated a building or a monument in memory of the student-soldiers who sacrificed their lives in the World War. This dedication has a much wider significance than the fact that such a building or monument has been completed and is now adorning our campus. The dedication brings to mind memories of the past and at the same time points toward the future. A theme upon the topic might begin with a very brief account of the dedication ceremonies, then comment upon the heroism and sacrifice which the Memorial is to commemorate, and finally show what the completed Memorial is to mean in our college life and what its influence is to be in leading future generations of students to give their best efforts to serve their country and to aid in making another war impossible. If these ideas are used, the order will almost surely be the one indicated, since it begins with what is immediately in the reader's thoughts, proceeds to matters more remote but still within his personal knowledge, and then advances to a consideration of the unknown future. The order is also that of climax, since the thought that is worthy of greatest emphasis is the service of the Memorial in inspiring coming generations to the building of a better world.

**Interpretation of Personal Experience.**—Among our personal experiences may be found a second type of material for interpretation. The specific experience may have been clerking in a store, raising chickens, teaching school, keeping house, earning our way through



school, living in a dormitory, working as a section hand, taking a trip, reading a certain book, or any one of a hundred other things. The requirement is that it have more significance than is revealed by the mere statement of the facts connected with it. Our controlling idea may be after one of the following patterns: From my experience as a clerk in a dry-goods store I learned a great deal about human nature; School-teaching has not only made it possible for me to come to college, but has also given college life a deeper significance for me; Life in a dormitory both reveals and develops character; My trip to Europe was a valuable educational experience; My whole attitude toward life was changed by my reading of *Heroes and Hero-Worship*. Whatever experience we discuss, we must exercise great care to maintain the expository point of view. Such narrative material as we insert must be used only as necessary preliminary information or as illustration of the various points. Here again our safety lies in making a clearly expository outline. As main heads a discussion of the experience of teaching school before going to college might have these topics:

- I Value in money
- II Value in intellectual power
- III Value in character development

**Interpretation of a Situation.**—For want of a better term we may give the name "situation" to the third type of material whose significance demands attention. This is a favorite kind of topic with writers of longer editorials and magazine articles and even with authors



of books. The flood of comment upon the shortcomings of our educational system, the problems of our churches, the new conditions arising from the increased emphasis on science, the changed international relationships since the World War, the relation of labor and capital, and a host of other topics, indicates the importance of this type of discussion. In our own work we shall do well to take subjects of limited range. "The Greatest Need of My High School" is for us a better topic than "What is the Matter with Education?" Such subjects as "Social Conditions in My Home Town," or "The Place of Athletics in College Life," or "The Relations of Fraternity and Non-fraternity Men," or "Class Distinctions in College," are topics about which we may form and express a clear and well-balanced opinion. Stress should be laid upon the term "well-balanced." Almost any situation which interests us enough to make us wish to discuss it has enlisted our sympathies for some one point of view and inclined us to overemphasize this. Before writing we must make a sincere effort to see the situation from all sides. "The Place of Athletics in College Life" must be considered with reference to other points besides the advertising value of a successful football team, or even the recognized benefits of physical training. "The Greatest Need of My High School" must be determined with the welfare of the whole school in mind and not simply from the standpoint of one interest or organization.

In all these types there is need for clear and fair-minded presentation. The writer must so use his material that the reader will feel he is gaining the opin-

ion of one who has personal knowledge, has thought clearly, and has formed conclusions that rest upon a foundation of broad information and intelligent judgment.

### THE RESEARCH PAPER

**Gathering Material.**—It frequently happens that people want to incorporate in papers for publication or for reading before a club material which is not within their own experience. Libraries nowadays are arranged with special accommodations for such people. If we are going to look up something on a given subject, we naturally want first to know just where the desired information is to be looked for. Our principal aids are for books the card catalogue and for magazines the *Readers' Guide to Periodical Literature*.

In using the catalogue we look up topics covering the general field in which we are interested. For example, if we are writing on The Little Theater Movement or The Child Labor Amendment we find "Theater" or "Child" and work down to the subdivision of these broad topics. If, as sometimes happens, there are many more books treating the particular point than we can read or even look over, we have to select. Careful scrutiny of the titles and of the information about the contents which is found on the card will sometimes help us. Or it may be that we can tell by the names of the authors which are most authoritative. For many kinds of facts the date is very important, as later information may have made earlier discussions much less valuable. At any rate, we should decide on two or

three books, and, after obtaining them from the delivery desk, take them to a table to look over. Very rarely have we any intention of reading books through. The first task is to examine the table of contents, the title page to verify the date, and then the preface to find what the writer had started out to do. Choosing the chapter that from its title most certainly contains usable material, we glance it through, following the thought rapidly by key phrases or sentences. After doing this with several of the most promising chapters, we can tell how useful the book is likely to be and may note its name as a reference to be more carefully explored later. We have now perhaps a slightly more definite impression as to just what it is we want to find, and with the next book and the next can be on the lookout to supplement what we already have with additional subject matter.

Periodical articles are also most easily found by looking for a general subject. The *Readers' Guide* is a row of bulky volumes made up of alphabetical lists of articles, poems, and stories which have been published in magazines for a number of years. Recent additions are collected into smaller volumes by years and published in pamphlet form each month. Under a general heading, such as "Child Labor" or "Theater," we find the names of all articles which have been written on this general subject or subdivisions of it throughout the time covered. Each is listed by its title, if it has one, with the name of the author, if it is signed, and in any case with the number of the bound volume, the pages covered, and generally the exact date of the magazine.

The first reading may furnish a background for all subsequent discoveries. It is well to choose a rather long article, whose title suggests a comprehensive survey. Probably this will be found in a serious monthly or quarterly, like the *Contemporary Review*, the *Edinburgh Review*, the *North American Review*, or *Science*. From a careful reading we may get not only a general impression which may straighten out our partial impressions, but also a knowledge of the time limits within which our subject lies, with some idea of the relative importance of earlier and later phases. We may also get definite hints as to the names of people or organizations that ought to be looked up for more adequate information on some part of the subject. Perhaps it is as well at first to read rapidly and rather widely, taking few notes or none; then, after we have become familiar with the subject matter from a number of angles, begin taking definite notes, and as soon as possible make an outline to guide the note-taking, which should become more and more direct and purposeful.

**Note-taking.**—Taking notes from reading is simply the process of gathering material. The purpose is to make a collection of facts which may be used in adequate and interesting development of the subject planned. The more definite our intention, the more sure we are when we have found what we are looking for. The articles furnish only the raw material, the bricks, as it were, which we are to use in building our thought. Our notes have no reference to the structure of any articles. Generally we take nothing from their introduction or conclusion. In their body we ignore com-

ment, generalization, and conclusions, extracting merely the facts which have formed a basis for all these. Facts are impersonal and generally owned; opinions and interpretations of facts are individual and personally owned. If we find some of the opinions attractive, and think we might like to use them, we mark them plainly with the owner's name so that we may give him credit. If for any reason we wish to quote a sentence or so, we use quotation marks, being very careful to copy the passage exactly as it is written. Quotations are useful for one of two principal reasons: either because an occasional bit of vivid phrasing or an apt illustration lightens up a paper, especially in the introduction and conclusion, or because a statement by a trustworthy authority sometimes gains in impressiveness when given word for word. A safe rule to follow is to be chary of quotation and always quote exactly.

Some of the subject matter, then, belongs to the writers whom we are using as sources; the words into which they have put what they have to say are of course theirs, not ours. As we all know, the best test of our understanding of anything we have studied or read is our ability to rephrase its substance in our own words. The method of rote recitation has almost completely gone out, and it is easy to see that no intelligent paper is ever a mosaic of unacknowledged quotations.

Having got this preliminary matter straight, we may turn our attention to the actual business of note-taking. The most useful notes are those taken on library cards (3 x 5) with the descriptive topic on the red line. The meaning of the notes should be perfectly clear, but they



are preferably not written as connected sentences, and they should take up the least possible space. They are merely raw material and have in them nothing of design. If there is more on one point than can be conveniently written on the face of the card, the notes may be completed on the back. On each card should be indicated an exact reference, including the name of the magazine, the volume or exact date, and the particular page from which this bit of note-taking has been done. It is not uncommon to have information from two or more sources on the same small point on one card; each note should be followed by a definite reference to the book or magazine where it was found.

There are two ways of taking notes. One is to rephrase as we write, making the notes represent our understanding of what we have read. The wording of such notes may be used practically unchanged in the final paper. Another is merely to get down the facts in their lowest terms without thought of what words we use. This more rapid and effective method postpones to the time of writing the paper the task of working over the material into our own phrasing. Of the two ways the second is probably the one more fitted for actual research, the practice of most people who use a library for their own purposes. But, however the notes are taken, they should be as brief and condensed as is consistent with clearness.

The red line on the card is reserved for the topic. Again there is a choice as to what this shall be. Some people, throwing the emphasis on the relation of their notes to their subject, word the topics in such a way that



the organization of the material is worked out through the cards. Others, confining the topic strictly to the material already written out on the card, word it so that it will be an accurate description of this special point in the note taking. This last method makes notes of permanent value apart from the immediate use; and such cards may be kept in an alphabetical file for reference on future occasions. The first word in the topic should be one that will be suggested by the subject. Thus in making notes for a paper to be called "The Struggle of the Coal Mines," we might head cards as follows: "Coal, anthracite—uses of," "Mines—safety devices—value of," "Strike, 1920—Coal fields affected." Perhaps it would be helpful to think, "Under what heading should I find this information most directly in the *Readers' Guide*?" That word will be a good one to put first in a card topic. Clearly, such words as "Condition," "Present aspects," "Desirability," or "When" or "Why," are not specific enough to head the titles of cards that are to be filed.

From the following paragraph in *The Woman Citizen* notes might be taken.

The second reason which has made the City Manager a wanderer was the strongest argument for his introduction in the first place. He is usually, and preferably, a stranger to the town in which he assumes administrative responsibility. It is as an abstraction wholly unfamiliar with the feuds and alliances of the town he is to run that the City Manager is held to be most valuable, as outside the realm of politics. He is employed by the small elected Council, wholly on his merits as a good executive—acquired through former experience as a City Manager, as organizer of big corporations, or in public or private service along lines which may parallel some of the requirements of the City Manager. An engineer of public utili-

ties has perhaps most often offered possibilities in this position. The slogan of his profession, to make one dollar do the work of two, in itself is the promise of economy. But, together with building and

## FIRST METHOD

### City manager, qualifications of

Best to be from outside city, free from its politics and quarrels. Qualified by service either in other cities as manager or in positions, public or private, requiring same kind of ability (often as city engineer). Must be able to manage without waste—indeed with saving—all the complicated business of the city. Must get along with men.

The New Way with Cities,

Emma H. deZouche,

*The Woman Citizen*, May 2, 1925, p. 7.

## SECOND METHOD

### City manager, qualifications, general

Preferably a stranger, outside of private interests, politics and feuds of town. Experienced as executive either from former service as city manager or in public or private service which may parallel some of the requirements (often as engineer of public utilities). Must be able to manage economically all the complicated business of the city and to deal successfully with men.

The New Way with Cities,

Emma H. deZouche,

*The Woman Citizen*, May 2, 1925, p. 7.

landscaping, providing water supply and lighting plants, street cleaning and garbage disposal, manipulating floating debts and other impedimenta, comes the necessary ability to deal with men. The City Manager must be more than the creator of his job; he must be the boss of his job. If he doesn't measure up to the requirements, it is in the power of the Council to displace him at any time.

In the first card the wording of the original has been changed entirely; in the second it has been used freely when convenient. In both there has been selection and the phrasing has been broken up.

**Writing the Theme.** —The kind of paper written from this material will depend upon our purpose. Exactly the same set of cards may be used for quite different papers. To begin with, we must consider whether the paper is to be read aloud or to be printed.

In a research article written for a magazine or in a thesis written in a college course we use the library material as secondary to our own deductions and conclusions, either to support them or to be answered by them. Since this paper is addressed to readers, quotations may be introduced without preparation, the reference being indicated in a footnote. Whenever we make use of an opinion or contention we make a similar reference. There are various forms of footnotes. Perhaps the simplest way to indicate their relation to the text is by little figures at the end of the passage to which reference is made.

The "club paper," being intended for an audience, requires somewhat different treatment. Quotations and expressions of opinion need to be definitely acknowledged, either specifically with the name of the person quoted, if that is important enough to carry weight, or, if not,

with some formula: "As I read the other day," or "As one writer says." The point is, of course, that no self-respecting person wants to take credit for ideas or expressions that are not his. Probably in a class exercise the notes will be handed in with the theme so that the instructor may judge the student's success both in reading and in reproducing. A convenient way of keeping track of how the notes are being used is to number the cards, and when a certain bit of information is used to write the corresponding number on the margin of the theme.

Probably the most important considerations in determining the style of any piece of work compiled from reading or study are the audience to be reached and the mood or mental attitude of the writer. The form of controlling idea should suggest both. An audience of special information and training would enjoy a technical treatment suited to its particular knowledge, but ordinarily the readers of a paper or the members of a club want a clear, interesting treatment in ordinary language. Through the introduction we make the contact with our readers or hearers. Consequently this part of the paper counts for a good deal. In it we may give an explanation of our interest in the subject, our attitude toward it, and our reason for presenting it in the form we have chosen. We should, of course, consider our notes as so much information and use them with perfect freedom for our own purposes, thinking of them, indeed, as merely equivalent to the knowledge furnished by experience in the writing we have done earlier this year. We should, however, be entirely independ-

ent, not only of the individual words from various sources, but also of the whole phrase pattern. We should try to weave an entirely new pattern, putting into it as much color and life, as much of concrete and individual treatment and comment, as we are capable of evolving. Thus in a properly written research paper there is the satisfaction of learning enough about one subject to gain a sense of mastery, as well as of organizing and working up richer and more substantial subject matter than has heretofore been at our disposal.

#### EXPOSITION BASED UPON THE STUDY OF A BOOK<sup>1</sup>

**Interpretation.**—The simplest type of interpretation of any piece of writing is merely stating in our own words the essential thought contained in it—that is, making an abstract. A summary or abstract of a book does not differ in principle from the summary of the article, which has been discussed in an earlier section. Often, however, it is desirable to go beyond the mere summary and discuss the author's purpose and method, or express an opinion as to the value of the book.

It should be obvious that we have no right to judge of a writer's success unless we realize clearly just what he is attempting to do. If the book is a novel, is the author attempting primarily to work out a favorite idea, to portray character, to show the life of a certain place or time, or merely to tell a story of such plot interest that it shall be read with breathless eagerness to the end? Again, we must consider the class of readers for whom the book is intended. The child, the untrained

<sup>1</sup> See p. 270, "The Quaintness of Mr. Crothers."

man, and the graduate of a scientific course demand, as a rule, different material, and certainly different methods of treatment. Finally, any information we can gain about the author himself, the time and circumstances of his writing, and his ideas as expressed in other books, may help us to understand his purpose. Often in a non-fiction book the author will state in a preface or introduction the purpose which he hopes to accomplish. Thus Mr. H. G. Wells at the beginning of his *Outline of History* stated his purpose, "to show that history *as one whole* is amenable to a more broad and comprehensive handling than is the history of special nations and periods, a broader handling that will bring it within the normal limitations of time and energy set to the reading and education of the ordinary citizen." If we keep this purpose in mind, we shall avoid much temptation to irrelevant objections to the book because it does not accomplish the same results as other historical works which have entirely different aims.

Having determined just what our author is trying to do, we are ready to discuss the method by which he carries out his purpose and the extent to which he succeeds. If the book is a novel, there arise the familiar questions about plot, characters, and setting. In non-fiction we shall be interested in the method of presentation. Does the author state his points and leave them to carry their own weight, or does he use a wealth of illustration and explanation? Is he always serious, or is he at times laughing at us? Is his style smooth, polished, rugged, abrupt, flowing, simple, figurative?



Does he proceed steadily toward his point, or does he digress frequently? The questions are numberless, but the significance of style and diction lies always in the contribution they make to clearness and effectiveness of thought; that is, in answering these questions we are seeking to discover how the author succeeds in the thing he is trying to do.

Our final question concerns the real worth of the book. The writer may have a definite purpose and may succeed in carrying it out, but, unless the thing he does has some actual value, the book may fail to win our approval. We may approach this judgment with some hesitation, feeling that a more extended knowledge of literature and critical standards would be necessary for one who is to give an adequate estimate. Yet, even though our estimate may be inadequate, for ourselves it may be abundantly worth while. Two things we must guard against: we must not be insincere and express a liking for a book merely because persons whose judgment we trust like it; and we must not assume that our failing to enjoy a book proves it a failure. If we do not like it, we shall gain something by a careful effort to discover the reason for our dissatisfaction. If more experienced critics have approved it, we may well consider the reasons for their approval and try to form some standards for our own guidance. We shall not make much progress if we are willing to sweep a book aside with the condemnation "uninteresting." Interest is a quality of the reader as much as of the subject matter. There are, however, certain grounds upon which we may justly reject a book. If it

is not in accord with the facts of life, if its tendency is to cheapen the taste or lower the ideal, we may with warrant condemn it.

When we have completed our reading of the book and formed our opinion, we are confronted with the problem of writing our discussion. In this we may very easily make the mistake that many other writers have made of giving most of the space to summary and reserving only a final paragraph for comment. Such a piece of writing is an abstract rather than a review or interpretation in the true sense of the term. Here, as so often before, we shall find our safeguard in a careful outline, an outline of an interpretation of the book, not of the book itself or of a summary. With a thoughtful study, a well-considered opinion, and a good expository outline, we should be able to formulate an interpretation that will justify the effort it has cost.

**Special Topics.**—Very often the most valuable paper we can write after studying a book will be not a general comment, but rather a discussion of some one point or some suggested topic. In a novel the analysis of a certain character or a comparative study of two characters may be valuable. Such a topic as "Life in Mellstock Parish" may give better results than a general criticism of Hardy's *Under the Greenwood Tree*. A comparison of Irene and Penelope may grow out of the reading of *Silas Lapham*. *The Scarlet Letter* may suggest "Life in Puritan New England."

Non-fiction books offer equally rich opportunities for themes on special topics. Margaret Lynn's *A Stepdaughter of the Prairie* may lead to a comparison of

life in the Middle West fifty years ago with life there today. W. H. Hudson's *Far Away and Long Ago* suggests a paper on "Boy Life in South America." A study of some of the nature essays of John Burroughs may be followed by a paper on "What John Burroughs Has Taught Me about Birds." Agnes Repplier's essays may make us want to write on the character of the author as it is revealed in her work.

There is, indeed, no limit to the field opened to us through books. Whether we attempt to interpret the work or to record our ideas upon some topic suggested by it, we shall find our thinking as well as our power of expression enriched by such study.

### THE PERSONAL ESSAY<sup>1</sup>

The word "essay" originally meant an attempt, a preliminary expression of one's thought upon a subject. Today the term has come to be applied to various types of short pieces of non-fiction prose, from the serious critical article or scientific treatise to the most whimsical humorous sketch. The form of essay which we are to consider here is the type generally known as the personal, informal, or familiar essay. As these terms indicate, this is a much less elaborate type of exposition than the types that have been previously discussed. It is personal, since it is an expression of the writer's self; informal, since it gives the effect of spontaneity, of unpremeditated expression; familiar, since it is often conversational in tone and at its best leaves the reader with

<sup>1</sup> See p. 275, "The Triumph of Greek"; p. 278, "The Cadence of the Crowd"; p. 294, "Bridge Builders."

the feeling of pleasure that he has after a talk with an agreeable companion.

The personal essay, then, is primarily an expression of the writer's opinion or of his attitude toward life. It is probably true that the best topics for such essays come unsought; but by a little effort we should be able to find a subject upon which we have an opinion that can be made interesting to a reader. Our subject should not be a profound, serious idea about which we may moralize, but rather some common phase of nature or life upon which we may let our thoughts dwell lightly. "Roll-call Reflections," "On the Library Steps," "Reserved Books," "College Wit," "After-examination Meditations," "The Perversity of Timetables," "Old Clothes," "Second-hand Textbooks," "Snap Courses," "Campus Customs," "Frat Pins," "Alarm Clocks," "Spreads"—these are illustrations of topics upon which we may express ourselves in a light-hearted way.

The personal essay is the least strenuous form of exposition. Its mood is relaxation; its method whatever we wish. The very term "personal" suggests individuality of treatment, and the more of our everyday selves we can put into our writing the better. There is use for whatever grace of style we have, whatever richness of vocabulary, whatever originality of phrasing. Lightness of touch, humor, keen observation, interest in the world of nature and man, have their part in making the personal essay a satisfaction to both writer and reader.

## EXERCISES FOR CHAPTER VIII

Suggested subjects for the Explanation of a Process:

- Bandaging a Sprained Ankle
- Preparing for a Class Play
- Raising Chickens for Profit
- Learning to Drive a Car
- Teaching a Dog Tricks
- Welding a Casting
- Running a Boarding Club
- Preparing for a Camping Expedition
- Setting Up a Tent
- Deciding on a College
- Making a Forward Pass
- Using the Microscope
- Getting Ready for College
- Tuning a Violin
- Getting Ready for an Examination

Suggested subjects for the Explanation of a Reason:

- The Person I Admire Most
- The Advantages of Bobbed Hair
- Why I Attend (or do not attend) Movies Regularly
- My Ideal Hero
- My Favorite Study (Book, Sport, Magazine, etc.)
- A Desirable Change on Our Campus
- The Popularity of Jazz
- The Necessity for Saturday Classes
- The Value of Learning to Dance
- The Advantages of Intensive Farming
- The Superiority of the—Car

Suggested subjects for the Interpretation of a Character:

- My Most Serious Fault
- My Chief Ambition
- My Childhood Chum
- A Queer Character in My Home Town
- The Hero of Our High School
- The Person Who Has Most Influenced Me
- The Biggest Man in Our State

## TYPES OF EXPOSITORY WRITING 107

A Great Statesman (Soldier, Philanthropist, Inventor)  
The Noble Red Man (Uncas)  
The Finest Character I Have Met in Fiction  
The Hero of the Latest Novel I Have Read  
Celia, the Faithful Friend (in "As You Like It")  
Robin Hood

Suggested subjects for the Interpretation of an Event, Experience, or Situation:

What the Discovery of Oil Meant to My Town  
The Present Athletic Situation in Our College  
My Experience with Books  
The Influence of the Movies upon Children  
What the New Stadium Will Do for Our College  
The Joys of Gardening  
Keeping House  
Learning to Read Human Nature  
The Musical Training of Children  
The Pleasures of Hunting  
The Most Important Industry of My Town  
The Effect of Musical Memory Contests upon School Children  
How I Learned to Like Poetry  
Being a High School Senior  
Being the Youngest Child in the Family  
The Responsibilities of a Football Captain  
What a Surveyor Learns

Suggested subjects for Research Papers:

Child Labor Legislation  
Women in Industry  
Tunneling the Mountains  
The Condition of Women in India  
The Construction of the Panama Canal  
Agriculture in Argentina  
Recent Discoveries in Medicine  
The Technical Side of the Moving Picture Business  
The Use of Chemistry in Business  
The Forest Ranger Service  
The Mediæval Guilds  
The Present Situation in the Coal Fields



The Mounted Police  
 The Preservation of the Forests  
 The Work of the Barbizon School  
 Changing Conceptions of Poetry  
 The Problem of Japanese Immigration  
 The Success of Women in Political Office  
 The Home Life of the Chinese  
 The Working of the Dawes Plan  
 Education in the Philippines  
 The Political Importance of the Ku Klux Klan  
 Attempts to Form a Third Party in the United States

Suggested subjects for Exposition Based upon the Study of a Book:

An Englishman's Interpretation of Roosevelt (Lord Charnwood's *Life of Roosevelt*)  
 A Poet's Study of a Poet (Amy Lowell's *Keats*)  
 Another View of Lincoln (Barton's *Life of Lincoln*)  
 The Most Popular Novel of the Year  
 The Best Story I Read Last Year  
 Science Made Comprehensible (Slosson's *Creative Chemistry*)

*David Copperfield*

London Life a Hundred Years Ago  
 The Character Contrasts in *David Copperfield*  
 The Autobiographic Element in *David Copperfield*

*Stephenson's Life of Lincoln*

The Development of Lincoln's Character  
 The Prejudices of the Author  
 United States Politics in the Middle of the Nineteenth Century  
 My New Conception of Lincoln

*Schauffler's Musical Amateur*

The Humorous Element  
 The Character of the Writer  
 The Value of the Book to a Student of Music

McFee's *An Ocean Tramp*

- The Autobiographic Element
- The Novelist's Ability to Make People Real
- The Glamour of the Book

Beebe's *Galápagos*

- Animal Life without Enemies
- The Attitude of a Naturalist (toward animals or toward the hardships of the surroundings)
- The Style of the Book (suitability of general arrangement and tone to subject matter)

Suggested subjects for Personal Essays

- Playing House
- "Keep off the Grass"
- The People in the Class Above
- Reflections on the Weather
- End-of-the-term Resolutions
- My Book Friends
- The Advantages of Procrastination
- Meditations of a Grind
- Rainy Days
- Old Clothes
- The Fun of Tinkering
- Breaking New Year's Resolutions
- Taking Things to Pieces
- End-of-the-term Feelings



**Part Two**  
**ILLUSTRATIVE SELECTIONS**



## PARAGRAPHS

THE idea of Evolution has influenced all the sciences, forcing us to think of *everything* as with a history behind it, for we have traveled far since Darwin's day. The solar system, the earth, the mountain ranges, and the great deeps, the rocks and crystals, the plants and animals, man himself and his social institutions—all must be seen as the outcome of a long process of Becoming. There are some eighty odd chemical elements on the earth today, and it is now much more than a suggestion that these are the outcome of an inorganic evolution, element giving rise to element, going back and back to some primeval stuff, from which they were all originally derived, infinitely long ago. No idea has been so powerful a tool in the fashioning of New Knowledge as this simple but profound idea of Evolution, that the present is the child of the past and the parent of the future. And with the picture of a continuity of evolution from nebula to social systems comes a promise of an increasing control—a promise that Man will become not only a more accurate student but a more complete master of his world.<sup>1</sup>

We are all pretty familiar from experience with the limitations of the sense of smell and the fact that

<sup>1</sup> From the Introduction to the *Outline of Science*, edited by Professor J. Arthur Thomson. Used by permission of the publishers, G. P. Putnam's Sons.



agreeable odors please us only fitfully; the sensation comes as a pleasing shock, a surprise, and is quickly gone. If we attempt to keep it for some time by deliberately smelling a fragrant flower or any perfume, we begin to have a sense of failure as if we had exhausted the sense, keen as it was a moment ago. There must be an interval of rest for the nerve before the sensation can be renewed in its first freshness. Now it is the same, though in a less degree, with the more important sense of sight. We look long and steadily at a thing to know it, and the longer and more fixedly we look the better, if it engages the reasoning faculties; but an æsthetic pleasure cannot be increased or retained in that way. We must look, merely glancing, as it were, and look again, and then again, with intervals, receiving the image in the brain even as we receive the "nimble emanation" of a flower, and the image is all the brighter for coming intermittently. In a large prospect we are not conscious of this limitation because of the wideness of the field and the number and variety of objects or points of interest in it; the vision roams hither and thither over it and receives a continuous stream or series of pleasing impressions; but to gaze fixedly at the most beautiful object in nature or art does but diminish the pleasure. Practically it ceases to be beautiful and only recovers the first effect after we have given the mind an interval of rest.<sup>1</sup>

The power to dissociate superficial analogies, attend to differences, and appreciate variety is lucidity of mind.

<sup>1</sup> Reprinted from *Afoot in England*, by W. H. Hudson, by permission of Alfred A. Knopf, Inc., authorized publishers.

It is a relative faculty. Yet the differences in lucidity are extensive, say as between a newly born infant and a botanist examining a flower. To the infant there is precious little difference between his own toes, his father's watch, the lamp on the table, the moon in the sky, and a nice bright yellow edition of Guy de Maupassant. To many a member of the Union League Club there is no remarkable difference between a Democrat, a Socialist, an anarchist, and a burglar, while to a highly sophisticated anarchist there is a whole universe of difference between Bakunin, Tolstoi, and Kropotkin. These examples show how difficult it might be to secure a sound public opinion about de Maupassant among babies, or about Democrats in the Union League Club.<sup>1</sup>

Many modern folk have a quite unjustified sense of intellectual superiority over their ancestors because so many evils which our forbears took for granted we would not endure, and so many social improvements which seemed to them impossible we take for granted. But the difference between us and our ancestors does not lie primarily in individual increase of mental power on our part. There is no evidence that any man's intellect on earth today is equal to Aristotle's, nor do we know with any surety that the brain capacity of mankind as a whole is greater now than it was in the Ice Age. What has happened is mainly the slow accumulation of a social heritage. By long and patient processes of aspiring, thinking, trying, daring and sacrificing, mankind has accumulated a cultural inheritance.

<sup>1</sup> From *Public Opinion*, by Walter Lippmann, Copyright, 1922, by Harcourt, Brace & Co., Inc.

That democracy can be made to work, that by the scientific method we can gain mastery over the latent resources of the universe, that trial by jury is practicable, that torture is a foolish method of seeking evidence in the courts, that chattel slavery is a failure—such things we take for granted, not because we individually are wiser than our forbears, who disbelieved them all, but because we share in a social tradition which we did not even help to create, but which has shaped and conformed our thinking with irresistible power.<sup>1</sup>

As Dante, the Italian man, was sent into our world to embody musically the Religion of the Middle Ages, the Religion of our Modern Europe, its Inner Life; so Shakespeare, we may say, embodies for us the Outer Life of our Europe as developed then, its chivalries, courtesies, humors, ambitions, what practical way of thinking, acting, looking at the world, men then had. As in Homer we may still construe Old Greece; so in Shakespeare and Dante, after thousands of years, what our modern Europe was, in Faith and in Practice, will still be legible. Dante has given us the Faith, or soul; Shakespeare, in a not less noble way, has given us the Practice, or body. This latter also we were to have; a man was sent for it, the man Shakespeare. Just when that chivalry way of life had reached its last finish, and was on the point of breaking down into slow or swift dissolution, as we now see it everywhere, this other sovereign poet, with his seeing eye, with his perennial singing voice, was sent to take note of it, to give long-

<sup>1</sup> Reprinted from *Twelve Tests of Character*, by Harry Emerson Fosdick, by permission of the publishers, George H. Doran Company.

enduring record of it. Two fit men: Dante, deep, fierce as the central fire of the world; Shakespeare, wide, placid, far-seeing, as the sun, the upper light of the world. Italy produced the one world voice; we English had the honor of producing the other.<sup>1</sup>

To the man, as to the bird, flight appears very difficult to learn in the beginning and very easy when once it is learned. In the process of learning, however, the human being has a great advantage over his feathered rival. The latter must launch forth on his own wings. His parents may scream encouragement, admonition, and applause from near at hand, but, once the feeble adventurer has fairly left his perch, they can be of no practical assistance until the attempt at flight has terminated, and their interference is likely rather to bewilder than to assist. The fledgling has nothing to depend upon, while his feet are off the ground, except his own strength and an instinct derived from countless generations of winged ancestors—a “family tradition of flight,” the lack of which is the greatest handicap of man in his effort to rival the birds. When a man, on the other hand, seeks to qualify as an air pilot his initiation is gained by very easy stages. Starting with a purely vicarious aviation, riding as passenger with an experienced pilot and having no duties except to enjoy the scenery and become accustomed to the feel of the air, the novice progresses gradually but continuously, taking over one organ of control after another, until at last comes the memorable day when

<sup>1</sup> From “The Hero as Poet,” by Thomas Carlyle.

the instructor steps aside, casually remarking, "Well, I guess you can take her round alone."<sup>1</sup>

You are more aware of the stars in war than in peace. A full moon may quite halve the cares of a sentry; the Pole Star will sometimes be all that a company has, when relieved, to guide it back across country to Paradisiac rest; sleeping often under the sky, you come to find out for yourself what nobody taught you at school—how Orion is sure to be not there in summer, and Aquila always missing in March, and how the Great Bear, that was straight overhead in the April nights, is wont to hang low in the north in the autumn. Childish as it may seem to the wise, a few years' nightly view of these and other invariable arrangements may give a simple soul a surprisingly lively twinge of what the ages of faith seem to have meant by the fear of God—the awesome suspicion that there is some sort of fundamental world order or control which cannot by any means be put off or dodged or bribed to help you to break its own laws. "Anything," the old Regular warrant-officers say, "can be wangled in the army," but who shall push the Dragon or the Great Dog off his beat? And—who knows?—that may be only a part of a larger system of cause and effect, all of it as hopelessly undodgable.<sup>2</sup>

It had been hard for him that spake it to have put more truth and untruth together in few words than in

<sup>1</sup> From "The Way of a 'Bird' in the Air," by Edward P. Warner, in *The Yale Review* for July, 1920. Used by permission of the publishers and the author.

<sup>2</sup> From *Disenchantment*, by C. E. Montague. Used by permission of the publishers, Brentano's.



that speech, "Whosoever is delighted in solitude is either a wild beast or a God." For it is most true that a natural and secret hatred and aversion towards society in any man hath somewhat of the savage beast; but it is most untrue that it should have any character at all of the divine nature, except it proceed, not out of a pleasure in solitude, but out of a love and desire to sequester a man's self for a higher conversation: such as is found to have been falsely and feignedly in some of the heathen, as Epimenides the Candian, Numa the Roman, Empedocles the Sicilian, and Apollonius of Tyana; and truly and really in divers of the ancient hermits and holy fathers of the Church. But little do men perceive what solitude is, and how far it extendeth; for a crowd is not company, and faces are but a gallery of pictures, and talk but a tinkling cymbal, where there is no love. The Latin adage meeteth with it a little, "*Magna civitas, magna solitudo*"; because in a great town friends are scattered, so that there is not that fellowship, for the most part, which is in less neighborhoods. But we may go further, and affirm most truly that it is a mere and miserable solitude to want true friends, without which the world is but a wilderness. And even in this sense also of solitude, whosoever in the frame of his nature and affections is unfit for friendship, he taketh it of the beast, and not from humanity.<sup>1</sup>

As a matter of fact, each character in Shakespeare represents a theory of life—a theory which in the case of each important person is worked out with great fullness and reality. Of course there are stock figures,

<sup>1</sup> From "Friendship," by Francis Bacon.



whose actions are determined by the demands of the plot and are to be taken for granted, who can scarcely be said to have any thoughts, but the important ones are all thinkers. The greatest of them are poets, and their best speeches contain Shakespeare's sympathetic justification of their lives. Often Shakespeare seems more interested in explaining the action than in advancing it. Nine-tenths of the great passages are thoughtful; many of them are soliloquies, or arguments and explanations, during which the play seems to stand still. However, it does not stand still; the essential part of the action is this interplay of character, and the fullness with which the secret springs and motives are presented gives to these plays their wonderful richness and reality. In order to understand Shakespeare it is first of all important that the student should think about the questions which confront his characters.<sup>1</sup>

Most daring of all, perhaps, are the aërial journeys undertaken by many small spiders. On a breezy morning, especially in the autumn, they mount on gateposts and palings and herbage, and, standing with their head to the wind, pay out three or four long threads of silk. When the wind tugs at these threads, the spinners let go, and are borne, usually back downwards, on the wings of the wind from one parish to another. It is said that if the wind falls they can unfurl more sail, or furl if it rises. In any case, these wingless creatures make aërial journeys. When tens of thou-

<sup>1</sup> From *The Oxford Stamp*, by Frank Aydelotte. Used by permission of the publishers, The Oxford University Press.

sands of the used threads sink to earth, there is a "shower of gossamer." On his *Beagle* voyage Darwin observed that vast numbers of small gossamer spiders were borne on to the ship when it was sixty miles distant from the land.<sup>1</sup>

<sup>1</sup> From the *Outline of Science*, edited by Professor J. Arthur Thomson, vol. i., p. 202. Used by permission of the publishers, G. P. Putnam's Sons.

## DEFINITIONS

### SCIENCE

BY JAMES HARVEY ROBINSON

SCIENCE, we ought always to recollect, is nothing more or less than the most accurate and best authenticated information that exists, subject to constant rectification and amplification, of man and his world. It is by no means confined to stars, chemicals, physical forces, rocks, plants, and animals, as is often assumed. There is a scientific way of looking at ourselves—our thoughts, feelings, habits and customs; at their origin and inter-workings. *Science, in short, includes all the careful and critical knowledge we have about anything of which we can come to know something.*<sup>1</sup>

### BIOGRAPHY <sup>2</sup>

BY WALDO H. DUNN

Doubtless, few people have ever taken the trouble to put the definite query, What is biography? Fewer still, perhaps, have ever attempted to formulate an answer to what seems so easy a question. When we do

<sup>1</sup> Reprinted from *The Humanizing of Knowledge*, by James Harvey Robinson, by permission of the publishers, George H. Doran Company.

<sup>2</sup> By permission from *English Biography*, by Waldo H. Dunn, published by E. P. Dutton & Company.

seek for enlightenment, no host of critics can be summoned to our aid as in the case of such other forms of literature as poetry and prose fiction; for, as yet, biography has not been made to any great extent the subject of critical analysis and discussion. Such criticism as exists is scattered chiefly throughout reviews—often hastily and perfunctorily written—or is contained in a few remarks now and then made by biographers in the course of their narratives. Evidently, it has been generally taken for granted that every one knows what biography is.

It is true that definitions are usually unsatisfactory, and that most of us get along very well in using words which we should be puzzled to define logically. Yet not for this reason should the process of defining be set aside as useless, or unnecessary: attempts at definition are helpful in clarifying thought-processes, and the results are, at least, suggestive, affording points of departure for further discussion. We may see how needful is the attempt in the present instance by the briefest glance at what have usually passed for definitions of biography. Plutarch set before himself the task of “writing the lives of famous persons,” of “comparing the lives of the greatest men with one another.” No further thought of expressing more definitely what is meant by *lives* seems to have occurred to anyone until John Dryden, in 1683, introduced the word *biography* into the English language and declared it to be “the history of particular men’s lives.”

To say that biography is the history of one man’s life is, at least, to be clear and succinct, but the defini-

tion is no more than a beginning of the expository process. It is easy enough to say that the history of a man's life constitutes his biography; it is not so easy to declare what should go to make up the history; still less easy to say just what is meant by the life of which the history is to treat. What do we mean when we speak of *the life* of a man? The expression is common, and everyone knows, or thinks that he knows, what the term means. It is clear that notions have differed widely in the past, just as they differ widely in the present. It is evident that we need to expand the brief definition somewhat fully, that we may have a standard to which to refer for purposes of evaluation and comparison.

Biography is, fundamentally, the offspring of an inherent and deep-seated desire in man to perpetuate the memory of a life. Go backward as far as we may into the history of the subject, the underlying purpose is always the same—that of memorial. Some one has lived who, by the power of his spirit or the greatness of his achievement, has impressed his fellow-men; they, unwilling that his spirit and achievement should perish even as his body perished, have undertaken to produce some kind of lasting memorial. From rude heaps of stones collected to mark graves, such memorials have become elaborate monuments or magnificent temples upon which have been inscribed brief records of those in whose honour they were constructed. Or some man, impressed by his own spirit and achievement, and unwilling that all memory of his journey through life should pass away, has taken care to set up for him-

self a lofty obelisk or a towering pyramid to defy the power of "Time's fell hand." No stretch of imagination is required to see the close connexion between such memorials and the written documents, the books, of later ages. As man came to understand that the written and the printed word endured longer than marble and bronze he forthwith became author rather than architect. Whatever the medium employed, however, the primary purpose of life record has always been memorial.

The simple memorial-record soon developed into something more elaborate. Such early written documents as have been preserved enable us to follow the probable stages by which life-narrative has developed. Written first to perpetuate the memory of one who had for some reason excelled his fellows, the memorial seemed to gain in value as something of definite achievement was incorporated into the record. To primitive men, deeds were more impressive than the hidden spirit of which deeds are only the outward manifestation; and to them, great deeds were of more dignity than the small acts of every-day life. The great deeds of great men are, in retrospect, always prone to seem greater. The memorial, therefore, developed into a narrative, a history—usually panegyric in character—of the outward great events in the life of a great man. When a writer happened not to approve of the great man's life, it was an easy matter to transform panegyric into diatribe. By one road or the other, then, the narrative came to serve an ethical purpose. It was easy, also, for the man to be almost forgotten in the



course of the narrative of the events in which he participated: the memorial life-record became transformed into history. Again, it became a custom to arrange great men into groups, and thus the individual was well-nigh lost in the aggregate. The clear recognition of the individual, and of the inner spirit—the soul—as the source and mainspring of outward action, in short, the conception of life-narrative as portrayal of character, came at a comparatively late period in the history of mankind.

In the following pages it is assumed that a true biography is the narrative, from birth to death, of one man's life in its outward manifestations and inward working. The aims of such a true biography in its simplest form would therefore include a record of facts combined with some portrayal of character. In proportion as such a work approximates the complete fulfillment of these aims in all their legitimate ramifications, it approaches the ideal type; that is, an ideal biography would exhibit the external life of the subject, give a vivid picture of his character, and unfold the growth of his mind.

## SENTIMENT AND SENTIMENTALITY <sup>1</sup>

BY ARLO BATES

In emotion we express the difference between the genuine and the counterfeit by the words "sentiment" and "sentimentality." Sentiment is what a man really

<sup>1</sup> From *Talks on the Study of Literature*, p. 15. Used by permission of and by arrangement with the publishers, Houghton Mifflin Company.

feels; sentimentality is what he persuades himself that he feels. The Bad Boy as a "blighted being" is the type of sentimentalists for all time. There is about the same relation between sentimentality and sentiment that there is between a paper doll and the lovely girl that it represents. There are fashions in emotions as there are fashions in bonnets; and foolish mortals are as prone to follow one as another. It is no more difficult for persons of a certain quality of mind to persuade themselves that they thrill with what they conceive to be the proper emotion than it is for a woman to convince herself of the especial fitness to her face of the latest device in utterly unbecoming headgear. Our grandmothers felt that proper maidenly sensibility required them to be so deeply moved by tales of broken hearts and unrequited affection that they must escape from the too poignant anguish by fainting into the arms of the nearest man. Their grandchildren to-day are neither more nor less sincere, neither less nor more sensible in following to extremes other emotional modes which it might be invidious to specify. Sentimentality will not cease while the power of self-deception remains to human beings.

### THE SOCIAL SET <sup>1</sup>

BY WALTER LIPPMANN

Our social set consists of those who figure as people in the phrase "people are saying"; they are the people whose approval matters most intimately to us. In big

<sup>1</sup> From *Public Opinion*, by Walter Lippmann, Copyright, 1922, by Harcourt, Brace & Co., Inc.

cities among men and women of wide interests and with the means for moving about, the social set is not so rigidly defined. But even in big cities, there are quarters and nests of villages containing self-sufficing social sets. In smaller communities there may exist a freer circulation, a more genuine fellowship from after breakfast to before dinner. But few people do not know, nevertheless, which set they really belong to, and which not.

Usually the distinguishing mark of a social set is the presumption that the children may intermarry. To marry outside the set involves, at the very least, a moment of doubt before the engagement can be approved. Each social set has a fairly clear picture of its relative position in the hierarchy of social sets. Between sets at the same level, association is easy, individuals are quickly accepted, hospitality is normal and unembarrassed. But in contact between sets that are "higher" or "lower," there is always reciprocal hesitation, a faint malaise, and a consciousness of difference. To be sure in a society like that of the United States, individuals move somewhat freely out of one set into another, especially where there is no racial barrier and where economic position changes so rapidly.

Economic position, however, is not measured by the amount of income. For in the first generation, at least, it is not income that determines social standing, but the character of a man's work, and it may take a generation or two before this fades out of the family tradition. Thus banking, law, medicine, public utilities, news-

papers, the church, large retailing, brokerage, manufacture, are rated at a different social value from salesmanship, superintendence, expert technical work, nursing, school-teaching, shopkeeping; and those, in turn, are rated as differently from plumbing, being a chauffeur, dressmaking, sub-contracting, or stenography, as these are from being a butler, lady's maid, a moving-picture operator, or a locomotive engineer. And yet the financial return does not necessarily coincide with these gradations.

Whatever the tests of admission, the social set when formed is not a mere economic class, but something which more nearly resembles a biological clan. Membership is intimately connected with love, marriage and children, or, to speak more exactly, with the attitudes and desires that are involved. In the social set, therefore, opinions encounter the canons of Family Tradition, Respectability, Propriety, Dignity, Taste and Form, which make up the social set's picture of itself, a picture assiduously implanted in the children. In this picture a large space is tacitly given to an authorized version of what each set is called upon inwardly to accept as the social standing of the others. The more vulgar press for an outward expression of the deference due, the others are decently and sensitively silent about their own knowledge that such deference invisibly exists. But that knowledge, becoming overt when there is a marriage, a war, or a social upheaval, is the nexus of a large bundle of dispositions classified by Trotter under the general term instinct of the herd.

Within each social set there are augurs like the van der Luydens and Mrs. Manson Mingott in "The Age of Innocence," who are recognized as the custodians and the interpreters of its social pattern. You are made, they say, if the van der Luydens take you up. The invitations to their functions are the high sign of arrival and status. The elections to college societies, carefully graded and the gradations universally accepted, determine who is who in college. The social leaders, weighted with the ultimate eugenic responsibility, are peculiarly sensitive. Not only must they be watchfully aware of what makes for the integrity of their set, but they have to cultivate a special gift for knowing what other social sets are doing. They act as a kind of ministry of foreign affairs. Where most of the members of a set live complacently within the set, regarding it for all practical purposes as the world, the social leaders must combine an intimate knowledge of the anatomy of their own set with a persistent sense of its place in the hierarchy of sets.

The hierarchy, in fact, is bound together by the social leaders. At any one level there is something which might almost be called a social set of the social leaders. But vertically the actual binding together of society, in so far as it is bound together at all by social contact, is accomplished by those exceptional people, frequently suspect, who like Julius Beaufort and Ellen Olenska in "The Age of Innocence" move in and out. Thus there come to be established personal channels from one set to another, through which Tarde's laws of imita-



tion operate. But for large sections of the population there are no such channels. For them the patented accounts of society and the moving pictures of high life have to serve. They may develop a social hierarchy of their own, almost unnoticed, as have the Negroes and the "foreign element," but among that assimilated mass which always considers itself the "nation," there is in spite of the great separateness of sets, a variety of personal contacts through which a circulation of standards takes place.

Some of the sets are so placed that they become what Professor Ross has called "radiant points of conventionality." Thus the social superior is likely to be imitated by the social inferior, the holder of power is imitated by subordinates, the more successful by the less successful, the rich by the poor, the city by the country. But imitation does not stop at frontiers. The powerful, socially superior, successful, rich, urban social set is fundamentally international throughout the western hemisphere, and in many ways London is its center. It counts among its membership the most influential people in the world, containing as it does the diplomatic set, high finance, the upper circles of the army and the navy, some princes of the church, a few great newspaper proprietors, their wives and mothers and daughters who wield the scepter of invitation. It is at once a great circle of talk and a real social set. But its importance comes from the fact that here at last the distinction between public and private affairs practically disappears. The private affairs of this set are public



matters, and public matters are its private, often its family affairs. The confinements of Margot Asquith like the confinements of royalty are, as the philosophers say, in much the same universe of discourse as a tariff bill or a parliamentary debate.

There are large areas of governments in which this social set is not interested, and in America, at least, it has exercised only a fluctuating control over the national government. But its power in foreign affairs is always very great, and in war time its prestige is enormously enhanced. That is natural enough because these cosmopolitans have a contact with the outer world that most people do not possess. They have dined with each other in the capitals, and their sense of national honor is no mere abstraction; it is a concrete experience of being snubbed or approved by their friends. To Dr. Kennicott, of Gopher Prairie, it matters mighty little what Winston thinks and a great deal what Ezra Stowbody thinks, but to Mrs. Mingott with a daughter married to the Earl of Swithin it matters a lot when she visits her daughter, or entertains Winston himself. Dr. Kennicott and Mrs. Mingott are both socially sensitive, but Mrs. Mingott is sensitive to a social set that governs the world, while Dr. Kennicott's social set governs only in Gopher Prairie. But in matters that affect the larger relationships of the Great Society, Dr. Kennicott will often be found holding what he thinks is purely his own opinion, though, as a matter of fact, it has trickled down to Gopher Prairie from High Society, transmuted on its passage through the provincial social set.

RELIGION<sup>1</sup>

BY JOSEPH A. LEIGHTON

Many definitions have been given of the nature or essence of religion. These definitions have been framed from various points of view. Religion has been defined in psychological terms as primarily an attitude of *feeling*, or *volition*, or *thought*. Schleiermacher's famous statement that the essence of religion is a feeling of dependence on the Infinite, *a sense and taste for the Infinite*, illustrates well the definition of religion as feeling. Hegel's notion that religion consists in the apprehension, through representation or pictorial idea, of man's union with the Infinite illustrates the method of defining religion in intellectual terms. Many thinkers have defined religion as consisting in a practical, a volitional attitude towards Higher Powers, which aims at getting something from them or gaining control or power. All these modes of definition have some truth, but all are one-sided.

Religion, whatever else it may involve, means at least a reaction of the entire human person to the problems and values and aims of life. This total reaction or attitude may, and normally does, have its roots in feeling, since feeling is the fundamental matrix or stuff of man's psychical life. And it is quite as true that man is a being who *thinks*—who frames and guides himself by images and general ideas or concepts—as it is

<sup>1</sup> From *Religion and the Mind of To-Day*, pp. 3-5. Used by permission of the publishers, D. Appleton & Co.

that he feels. The objects towards or away from which his feelings point are pictured or imagined, and at a higher level are thought in conceptual terms. The religious attitude is one of feeling directed either towards Higher Powers or a single Higher Power, believed to be able to control the forces of nature and to determine human destiny. And the Higher Power, the Transcendent Being, the "Determiner of Destiny" (J. B. Pratt's phrase) is either pictured or thought conceptually as being and working in some sort of dynamic relationship to both man and nature. The feelings and the notions of the beings towards which the feelings are directed lead man inevitably to act and to refrain from action in accordance with his beliefs. Therefore, we can say, psychologically, that religion always involves a belief in the existence of either several Higher Powers or of one Higher Power which controls the universe and with whom man can enter into personal relations—can fear or reverence, obey or disobey; and who will bestow some good on the faithful. Religion is the explicit belief in a *Supreme Reality* who is the Fountain of All Good. Religion always involves a specific *way of conduct* which brings man into right relation with the Supreme Reality.

Religion then always involves the following elements: (1) Conviction or judgment as to what are the highest, most satisfying and most lasting goods of life. Man would have no religion if he made no distinction between values or goods, if he put all aspects of his life on the same level. He must have a scale of life values. He must regard some goods and, therefore,

the activities and experiences involved in procuring these goods, as superior to others. But (2) if he could, without hindrance or aid, satisfy all his cravings for the most permanent and most desirable goods by the technical manipulation of physical forces and social human forces, he would have no need of a religion. Therefore, religion springs from the recognition of the actual failures, dissatisfactions, disharmonies, of everyday existence as contrasted with its conceivable permanent goods. Religion only springs up in the soul of man when he discovers the discrepancy between what he would be and what he is. The most hopelessly irreligious attitude is that of completely smug satisfaction: "Lord, I thank Thee that I am not as other men are." The most religious attitude is that of complete submission to the Transcendent Being who is the bearer of the Supreme Values: "Not my will, but thine be done." "Lord, be merciful to me a sinner." (3) The belief in the Higher Power who is the Source and Sustainer of the Highest Values involves *acts* on the part of the believer—acts of worship, sacrifice, prayer, obedience.

### EVOLUTION<sup>1</sup>

Evolution, as we have seen in a previous chapter, is another word for race history. It means the ceaseless process of Becoming, linking generation to generation of living creatures. The Doctrine of Evolution states the fact that the present is the child of the past and the

<sup>1</sup> From *The Outline of Science*, edited by Professor J. Arthur Thomson, vol. i., p. 185. Used by permission of the publishers, G. P. Putnam's Sons.

parent of the future. It comes to this, that the living plants and animals we know are descended from ancestors on the whole simpler, and these from others likewise simpler, and so on, back and back—till we reach the first living creatures, of which, unfortunately, we know nothing. Evolution is a process of racial change in a definite direction whereby new forms arise, take root, and flourish, alongside of or in the place of their ancestors, which were in most cases rather simpler in structure and behaviour.

## VARIOUS TYPES OF EXPOSITORY WRITING

### THE DRY LAND <sup>1</sup>

OVER and over again in the history of animal life there have been attempts to get out of the water on to *terra firma*, and many of these have been successful, notably those made (1) by worms (2) by air-breathing Arthropods, and (3) by amphibians.

In thinking of the conquest of the dry land by animals, we must recognize the indispensable rôle of plants in preparing the way. The dry ground would have proved too inhospitable had not terrestrial plants begun to establish themselves, affording food, shelter, and humidity. There had to be plants before there could be earthworms, which feed on decaying leaves and the like, but how soon was the debt repaid when the earthworms began their worldwide task of forming vegetable mould, opening up the earth with their burrows, circulating the soil by means of their castings, and bruising the particles in their gizzard—certainly the most important mill in the world.

Another important idea is that littoral haunts, both on the sea shore and in the fresh waters, afforded the necessary apprenticeship and transitional experience for

<sup>1</sup> From *The Outline of Science*, vol. i., edited by Professor J. Arthur Thomson. Used by permission of the publishers, G. P. Putnam's Sons.



the more strenuous life on dry land. Much that was perfected on land had its beginnings on the shore. Let us inquire, however, what the passage from water to dry land actually implied. This has been briefly discussed in a previous article (on Evolution), but the subject is one of great interest and importance.

#### DIFFICULTIES AND RESULTS OF THE TRANSITION FROM WATER TO LAND

Leaving the water for dry land implied a loss in freedom of movement, for the terrestrial animal is primarily restricted to the surface of the earth. Thus it became essential that movements should be very rapid and very precise, needs with which we may associate the acquisition of fine cross-striped, quickly contracting muscles, and also, in time, their multiplication into very numerous separate engines. We exercise fifty-four muscles in the half-second that elapses between raising the heel of our foot in walking and planting it firmly on the ground again. Moreover, the need for rapid precisely controlled movements implied an improved nervous system, for the brain was a movement-controlling organ for ages before it did much in the way of thinking. The transition to *terra firma* also involved a greater compactness of body, so that there should not be too great friction on the surface. An animal like the jellyfish is unthinkable on land, and the elongated bodies of some land animals like centipedes and snakes are specially adapted so that they do not "sprawl." They are exceptions that prove the rule.

Getting on to dry land meant entering a kingdom

where the differences between day and night, between summer and winter, are more felt than in the sea. This made it advantageous to have protections against evaporation and loss of heat and other such dangers. Hence, a variety of ways in which the surface of the body acquired a thickened skin, or a dead cuticle, or a shell, or a growth of hair, and so forth. In many cases there is an increase of the protection before the winter sets in, *e. g.*, by growing thicker fur or by accumulating a layer of fat below the skin.

But the thickening or protection of the skin involved a partial or total loss of the skin as a respiratory surface. There is more oxygen available on dry land than in the water, but it is not so readily captured. Thus we see the importance of moist internal surfaces for capturing the oxygen which has been drawn into the interior of the body into some sort of lung. A unique solution was offered by Tracheate Arthropods, such as Peripatus, Centipedes, Millipedes, and Insects, where the air is carried to every hole and corner of the body by a ramifying system of air tubes or tracheæ. In most animals the blood goes to the air, in insects the air goes to the blood. In the Robber-Crab, which has migrated from the shore inland, the dry air is absorbed by vascular tufts growing under the shelter of the gill-cover.

The problem of disposing of eggs or young ones is obviously much more difficult on land than in the water. For the water offers an immediate cradle, whereas on the dry land there were many dangers, *e. g.*, of drought, extremes of temperature, and hungry

sharp-eyed enemies, which had to be circumvented. So we find all manner of ways in which land animals hide their eggs or their young ones in holes and nests, on herbs and on trees. Some carry their young ones about after they are born, like the Surinam toad and the kangaroo, while others have prolonged the period of antenatal life during which the young ones develop in safety within their mother, and in very intimate partnership with her in the case of the placental mammals. It is very interesting to find that the pioneer animal called *Peripatus*, which bridges the gap between worms and insects, carries its young for almost a year before birth.

Enough has been said to show that the successive conquests of the dry land had great evolutionary results. It is hardly too much to say that the invasion which the Amphibians led was the beginning of better brains, more controlled activities, and higher expressions of family life.

### THE OPEN-HEARTH FURNACE <sup>1</sup>

By CHARLES RUMFORD WALKER

The steel starts in as "scrap"—scrap from anywhere in America—anything from a broken casting, the size of a man's trunk, down to corroded pipe, or strips the thickness of your nail salvaged in bales. The overhead crane gathers them all from arriving flat cars by a magnet as big as a cart wheel; the pieces of steel leap to meet the magnet with apparent joy, stick stoutly for a moment, and fall released into iron charge-

<sup>1</sup> From *The Atlantic Monthly*, June, 1922. Used by permission.

boxes. By trainloads they pass out of the stockyard and into the mill, where the track runs directly in front of the furnace doors. There the charging machine dumps them quickly into the hot belly of the furnace. Old furnaces, charged by hand, hold about ten tons; the new, 250 to 300 tons a "heat."

That is the first step in starting to make a "heat," which means to cook a bellyful to the proper temperature for steel, ready to tap into a ladle for ingot-making. Next comes making "front-wall." No self-respecting brick, clay, or any other substance can stand a load of metal up to steel-heat, without being temporarily relined right away for the next draft of flame. We do that relining by shoveling dolomite into the furnace. The official, known as second-helper, wields a Brobdingnag spoon, about two inches larger than a dinner-plate and fifteen feet long, which a couple of third-helpers, among them myself, fill with dolomite. By use of the spoon, the second-helper spreads the protection over the front-wall.

But the sporting job on the open-hearth comes a bit later, and consists in making "back-wall." Then all the men on the furnace and all the men on your neighbor's furnace form a dolomite line, and, marching in file to the open door, fling their shovelfuls across the flaming void to the back-wall. It's not a beginner's job. You must swing your weapon through a wide arc, to give it wing, and the stuff must hop off just behind the furnace door, and rise high enough to top the scrap between and land high. I say it's not a beginner's job, though it's like golf—the first shovelful may be a

winner. What lends life to the sport is the fact that everybody's in it: it's the team play of the open-hearth, like a house-raising in the community.

Another thing giving life is the heat. The mouth of the furnace gapes its widest, and you must hug close in order to get the stuff across. Every man has deeply smoked glasses on his nose when he faces the furnace. He's got to stare down her throat, to watch where the dolomite lands. It's up to him to "place" his stuff—the line isn't marching through the heat to warm its hands. Here's a tip I didn't savvy on my first back-wall: Throw your left arm high at the end of your arc, and in front of your face; it will cut the heat an instant, and allow you to see if you have "placed" without flinching. It's really not brawn,—making back-wall,—but a nimble swing and a good eye, and the art of not minding heat.

After that is done, she can cook for a while, and needs only watching. The first-helper gives her that, passing up and down every few minutes to look through the peepholes in her furnace doors. He puts his glasses down on his nose, inspects the brew, and notices if her stomach's in good shape. If the bricks get as red as the gas flame, she's burning the living lining out of her. But he keeps the gas blowing in her ends as hot as she'll stand it without a holler. On either end the gas, and on top of it the air. The first-helper, who is cook of the furnace, makes a proper mixture out of them. The hotter he can let the gas through, the quicker the brew is cooked, and the more "tonnage" he'll make that week.



"Get me thirty thousand pounds," said the first-helper when I was on the furnace that first night. Fifteen tons of molten metal! I was undecided whether to bring it in a dipper or in my hat. But it's not more than running upstairs for a handkerchief in the bureau. You climb to a platform near the blower, where the stuff is made, and find a man there with a book. Punch him in the arm and say, "Thirty thou' for Number 7." He will swear moderately and blow a whistle. You return to the furnace, and on your heels follows a locomotive dragging a bucket—the ladle—ten feet high. Out of it arise the fumes of your fifteen tons of hot metal. The overhead crane picks it up and pours it through a spout into the furnace. As it goes in, you stand and direct the pouring. The craneman, as he tilts or raises the bucket, watches you for directions, and you stand and make gentle motions with one hand, thus easily and simply controlling the flux of the fifteen tons. That part of the job always pleased me. It was like modeling Niagara with a wave of the hand. Sometimes he spills a little, and there is a vortex of sparks, and much molten metal in front of the door to step on.

She cooks in anywhere from ten hours to twenty-four. The record on this floor is ten, which was put over by Jock. He has worked on most of the open-hearths from Scotland to Colorado.

When it's time for a test, the first-helper will take a spoon about the size of your hand, and scoop up some of the soup. But not to taste. He pours it into a mould, and when the little ingot is cool, breaks it with a sledge. Everyone on the furnace, barring myself,



looks at the broken metal and gives a wise smile. I'm not enough of a cook. They know by the grain if she has too much carbon, or needs more, or is ready to tap, or isn't. With too much carbon, she'll need a "jigger," which is a few more tons of hot metal to thin her out.

That's about the whole game—abbreviated—up to tap-time. It takes on an average of eighteen hours, and your shift may be anything, from ten to twenty-four. Of course, there are details like shoveling in fluorspar to thin out the slag. Be sure you clear the breast of the furnace, with your shovelful, when you put that into her. Spar eats the dolomite as mice eat cheese.

At intervals the first-helper tilts the whole furnace forward, and she runs out at the doors, which is to drain off the slag that floats on top of the brew. But after much weariness it's tap-time and the "big boss" comes to supervise.

Move aside the shutters covering the round peep-holes on her doors, at this time, and you'll see the brew bubbling away like malt breakfast-food ready to eat. But there's a lot of testing before serving. When it is ready, you run to the place where you hid your little flat manganese shovel, and take it to the gallery behind the furnace, near the tapspout. There you can look down upon the "pit," strewn with those giant bucket-ladles, and sprinkled with the clean-up men who gather painfully all that's spilled or slobbered of hot metal and saved for a second melting. The whole is swept by the omnipresent crane.

At a proper and chosen instant, the senior melter shouts, "Heow!" and the great furnace rolls on its

side on a pair of mammoth rockers, and points a clay spout into the ladle, held for it by the crane. Before the hot soup comes rushing, the second-helper has to "ravel her out." "Raveling" is poking a pointed rod up the tap-spout, till the stopping is prodded away. You never know when the desired, but terrific, result is accomplished. When it is, you retire just as you would from an exploding oil-well. The brew is loose. It comes out red and hurling flame. Into the ladle it falls, with a hiss and a terrifying "splunch."

The first- and second-helpers immediately make matters worse. They stagger up with bags containing fine anthracite, and drop them into the mess. These have a most damning effect. The flames hit the roof of the pit, and sway and curl angrily along the frail platform on which you stand. Some occult reasoning tells them how many of these bags to drop in, whether to make a conflagration or a moderate house-burning.

The melter waits a few minutes, and then shouts your cue. You and another helper run swiftly along the gallery to the side of the spout. At your feet is a pile of manganese, one of the heaviest substances in the world, and seeming heavier than that. It's your job and your helper's to put the pile into the cauldron. You're expected to get it in fast. You do.

There are almost always two ladles to fill, but you have a "spell" between. When she's tapped, you pick up a piece of sheet-iron and cover the spout with it. That's another job to warm frostbitten fingers.

One more step and the brew is an ingot. There are several tracks entering the pit, and at proper seasons

a train of cars swings in, bringing the upright ingot moulds. They stand about seven feet high from their flats. When the ladle is full and slobbering a bit, the craneman swings her gingerly over the first mould. Level with the ladle's base, and above the train of moulds, runs the pouring platform, on which the ingot-men stand.

By means of rods, a stopper is released from a small hole in the bottom of the ladle. In a few seconds the stream fills a mould, and the attendant shuts off the steel like a boy at a spigot. The ladle swings gently down the line, and the proper measure of metallic flame squirts into each mould. A trainload of steel is poured in a few minutes.

But this is when all omens are propitious. It's when the stopper-man has made no mistake. But when rods jam and the stopper won't stop, watch your step, and cover your face. That fierce little stream keeps coming, and nothing that the desperate men on the pouring platform can do seems likely to stem it. Soon one mould is full—but the ladle continues to pour, with twenty tons of steel to go. It can't be allowed to make a steel floor for the pit. It must get into those moulds. So the craneman swings her on to the next mould, with the stream aspart. It's like taking water from the tea-kettle to the sink with a punctured dipper. Half goes on the kitchen floor. But the spattering of molten metal is much more exciting. A few little clots affect the flesh like hot bullets. So, when the craneman gets ready to swing the little stream down the line, the workers on the platform behave like frightened fishes

in a mill pond. Then, while the mould fills, they come back, to throw certain ingredients into the cooling metal.

These ingots, when they come as virgin steel from the moulds, are impressive things—especially on the night turn. Then each stands up against the night air like a massive monument of hardened fire. Pass near them and see what colossal radiators of heat they are. Trainloads of them pass daily out of the pit to the blooming-mill. But my spell with them is done.

## IN PRAISE OF BRICK AND OAK <sup>1</sup>

BY CHRISTOPHER L. WARD

The man in the street has very vague ideas about architecture generally; but, if he be an American, of one thing he is quite convinced and certain—that for an American home there is but one fitting style, the colonial. Nor can it be said that this opinion is held only by the man in the street. It is widely diffused among many who pretend to some degree of æsthetic culture and informed taste. It is based on the ideas that the colonial is historically the distinctive American style, that it is peculiarly adapted to our climate and conditions, that it fits our habits of domestic life, that to our architects it is the vernacular, that to use any other is an affectation, a renunciation of our own institutions and hardly less than unpatriotic.

Is there any more reason why an American should confine his domestic architecture to the colonial style

<sup>1</sup> From *The Yale Review*, April, 1921. Used by special permission of *The Yale Review* and of the author.

than there is for his confining his taste in literature or art to the books and pictures of the colonial period? It so happened that when the Americans first began to turn their attention to architecture, as distinguished from mere building, this style was in vogue. But it was exotic even in England. Originating in an adaptation of Greek motives by an Italian, Andrea Palladio, it did not become popular in England until the beginning of the reign of George the First. Therefore, even if we are to confine our architectural styles to those of English origin, this one presents no claim founded on indigeneity.

It was not because it was so well adapted to our climate or way of living that our colonial ancestors adopted it. They lacked professional architects. The books on architecture most readily available to the American builder for the drawing of his plans were the then very modern English works, "Country Builders' and Workmen's Treasury of Design" by Batty Langley, and "The Country Builders' Assistant"—thesauri of Palladian classicism. From these emerged the "Salem doorways," the details of cornices, columns, and interior woodwork, which many of us are accustomed to regard as essentially American.

On the other hand, the older English styles—Tudor, Elizabethan, Jacobean—were evolved from English beginnings which are lost in dim antiquity. Their lineage is English from times more remote than those of the Conqueror. If we count our civilization English and feel ourselves bound to adhere to English styles, have not these styles a better claim to our acceptance



than the colonial? That we have but recently recognized them, that we must adapt them to our conditions, that we may at first sometimes stumble in so doing, these are mere incidents, not arguments against their use.

But the principal trouble with the reasoning of the upholder of the colonial style is that it *is* reasoning. He uses his intellect, instead of his æsthetic sense. He tries questions of good taste by historical tests, not by the canons of art. Because the carpenter-builders of Salem honestly rendered into sound woodwork the Palladian windows and other details derived from the Greeks through Palladio and Batty Langley, we are to follow in their footsteps to the end of the chapter. Because they had no better models at hand, we are to eschew all others. It will not do. It is not even sound reasoning and, æsthetically, it is very bad advice.

What are the considerations to determine our choice of a style in domestic architecture? They are of two sorts—practical and æsthetic. First, then, of the practical. The practical value of a house depends upon the size, shape, position, and relation of its rooms—its livableness. These depend upon the thing which is the first, the earliest consideration of the architect—that is, its plan.

The essential element of the plan of a Georgian colonial house—of any building designed on classic lines and modeled after classic originals—is symmetry, balance. The main doorway must be centered in the principal façade, dividing the house into two equal parts. These two parts must be symmetrical. If there be



thirty feet of building to the right of the front door, there must be thirty feet to the left. If there be a wing on the left of the main building, there must be an equal wing on the right. The windows must be of equal size and must be symmetrically placed. The result may be pleasing to one's sense of order and harmony, but what about reconciling it comfortably with the requirements of domestic life? There is little elasticity, little opportunity to adapt the size, position, relation, fenestration of the various rooms to their particular and respective uses, or to the idiosyncrasies of the family which is to occupy them. The rigidity of the plan makes one recognize the truth of the statement of Mr. Geoffrey Scott, in "The Architecture of Humanism," that Palladio in his search for form was too reactionary, that his conclusions were too academic, too set.

"Architecture," says Mr. Scott, "is subservient to the general uses of mankind," and "it is legitimate to see in it an expression of human life." The general uses of mankind require a variety in the size and shape of its living apartments and in their position and relation, which cannot be obtained in the "frozen music" of the classic plan. Human life is not formal, balanced, and symmetrical. An architecture of such "calculated restraint" is not its fitting environment, does not express it. The foxes dig their holes and the birds of the air build their nests to suit their own needs. The builder of a colonial house pours his house into a mould, designed for him according to the laws of the ancient Greeks.

In the older English styles there are no such limita-

tions. The hall, which is the focus of family life, is more or less centered, but the size, shape, position, and relation of the other rooms may be determined by their convenience and their respective uses. If it be desirable to assemble more or fewer rooms on this side or that, to draw them out in a wing here or there, to enter the house at this point or that, to vary the size and relation of the windows, it may be done. Modern human requirements, and not the architectural proportions of a Greek temple, are the determining factors.

And there is too much frank openness in the colonial plan, too little privacy. From a central vantage point one may usually see into all the first floor rooms. The plan yields its secrets to the most casual visitor. It has no reticences, keeps nothing back for future disclosure. It is like a man who tells you the whole history of his life at your first meeting. In the other styles the irregular plan allows of apartments remotely placed, reached by passage-ways more or less intricate, which need be discovered only to such as are eligible to intimate acquaintance with one's family life. There is an air, not of cold aloofness, but of well-bred reserve about such a plan.

And now of the æsthetic considerations. Let us start with the material of which the house shall be built. Bear in mind that the Georgian colonial is a classic style, derived from the Greek. *Ergo* it should be built of stone, cut stone. All the details are copied from the architecture of classic Greece. Applied to modern houses, they are meaningless. Reproduced in wood, they are falsified and debased. Greek architecture was

essentially an architecture of stone. Its Palladian adaptations were intended to be executed in stone. Only the poverty of the colonists forced upon them its rendition in cheaper materials, and only our blind following of false precedent perpetuates the ignominy. Hollow wooden shells, painted white, imitate solid marble columns. Cornices, capitals, entablatures, pediments, whose design and meaning demand marble, are turned out in wood and painted white. Here, then, is the cheapest kind of false art—the fashioning and coloring of one material to imitate another—a fraud which has vitiated the taste of millions of Americans without their knowing it.

For walls, either brick or clapboards are used. Brick is an unimpeachable material for domestic buildings when rightly employed, but when we build dull red brick walls and contrast with them the glaring white of column, pediment, and cornice, the result is far removed from the Palladian intention of harmony. The building is not classic in effect, but merely pseudo-classic in detail—imitation pseudo-classic at that. The heavy white cornice on the brick house is as inartistic, as un-Greek, and almost as funny as the huge white linen collar on the Mad Hatter. The white pediment, columns, and doorway against the dark red bricks have the same value artistically as the white shirt-front on the negro minstrel. So much for the brick built colonial house.

But you may build entirely of wood. You will, if you want to escape the violent contrast of brick. The Circean charms of the colonial style seduce you to build

in wood and paint it white all over. And now you are lost indeed. You are lost, because you must paint anew every two or three years. The economic considerations are not important here, because æsthetics has nothing to do with money, and this essay deals with the æsthetic relationship of the house to man and to its environment. What is important is that you lose the softening, endearing, ennobling touch of time. A new house is an abomination in the landscape, as every artist knows, unless it be of a hue so subdued as to look old. A newly painted house is a new house. Every time you paint it you lose all the effects of its age. Nothing but age will tame a new house, subdue it to its surroundings, make it part of the landscape. Time, the master artist, takes the new house in hand and with infinite and inimitable art, in his own leisurely fashion, proceeds to make a picture of it; every two or three years the master of a painted wooden house wipes from the canvas every trace of beauty in the picture.

Brick, on the other hand, yields to the touch of time so willingly, so graciously, that it mellows with the passing years into a masterpiece of color. Its texture becomes beautifully accentuated, its coloration varied but always harmonious. Year by year it grows better to look at, better to live in. No art can counterfeit the beauty of old brick masonry.

Brick is the true material for men's houses. It is coeval with man. It belongs to the age of man and his domination of the earth. It is the product of his toil. It owes its existence to him. Fashioned by man from the dust of the earth, its relationship to its creator is

sympathetic, grateful, cordial. Its honest face is instinct with homeliness, in the original sense of the word. Its sturdy appearance betokens its natural endurance, which is proved by the survival of the earliest examples through six thousand years. Its form and size are apt for its uses. Its color is warm and human. It ages graciously and beautifully. The changes wrought by time upon its surface only dignify it.

It has not to be tamed nor wrought upon to induce its subjection to domestic uses. It has served man for ages. Its domesticity is complete. It is so domestic that it may be brought indoors, and its use in hearths and chimney breasts gives none of the feeling of awkwardness and impropriety which a similar use of stone in its natural state is sure to induce. Its small size and coherence give it a plasticity in mass which enables us to mould our houses to the desired shape with almost as much freedom as if we were working in its mother material, the clay of the potter.

This world will go the way of all worlds, die and become as is the moon—a cold and empty ball. All organic bodies will relapse into their chemical constituents, and the works of man will not long survive him. Not only will they fall in ruins but their very materials will disappear or revert to their pre-adamite condition. But after wood has rotted and iron has rusted and concrete has disintegrated and stone has become mere rocks, there will remain bricks—the last survivors of man's handiwork. The loneliest thing upon the dead planet will be this humble servitor of man, whose



faithful endurance will put to shame the evanescence of its maker.

Stone is a prehistoric thing. It owes nothing to man except its exhumation and disruption and the form which he may give it. In itself, in its material structure, it is primal. It existed before man was, and it looks down upon him with cold austerity, as upon a newcomer and a disturber. The age of the stone which we build into a wall is measured not by years, like our own, nor by days like that of the little brick, but by aeons, by millions of years, perhaps hundreds of millions. It comes from that far-off, remote, unhappy time ere man and brick were.

In the matter of domesticity, in its natural condition, it is to brick as the tiger to the harmless, necessary house cat. In its most usual state in domestic architecture, that is, merely rudely broken to size and shape, it is rough, hard, repellent, unsympathetic. Its disposition is that of the galley-slave chained to the oar, sullen, resentful, persisting in its new occupation only because it cannot escape. A brick lies flat and snug in its bed of mortar, consciously, cheerfully fulfilling the purpose of its existence, with a willingness and a static energy that are delightful to behold. It seems almost elastic in the tenacity with which it clings to its neighbor. It asks no more of the mortar than a flat bed.

The roughly broken or crudely hewn stone is almost dynamic in its resistance to conformity to its new conditions. Rigidity in its refusal to parallel its neighbors' equally irregular and unyielding outline is its outstanding characteristic. Only the compliance of the flexible



line of the obliging mortar with its uncomfortable angularity, its preposterous assertion of individuality, saves the wall from disruption and ruin. So much is true of the stone of igneous origin at least. Some of the sedimentary rocks are more tractable. They are later comers on earth. Less arbitrary, less self-sufficient, less recalcitrant, they may be split into forms which have some likeness to the ideal brick-form, and they assume a character distantly resembling the docility of the brick, but without ever really approximating it.

Of course, stone may be hewn and sawn by man into whatsoever shape he listeth. Rock aptly shaped and fitted is a building material in a class by itself. It has now yielded to master man. As cut stone it is subdued to its new use. Civilized, it assumes the habit of civilization. It conforms. It has lost its angular and rugged individuality, its disdain of civilized appearance. It has taken on the polish of the courtier. Always it had character. It needed only education and an understanding of its duties and responsibilities. Having these, its inherent sterling qualities shine forth. It is fit companion for the great, fit material for palaces and the like. But it has not acquired and never can acquire simple domesticity. It is either one thing or the other—in its natural state, a savage, refusing to recognize its duty to its neighbor man, or, in its acquired condition, a polished aristocrat, subscribing to *noblesse oblige* but scorning the humble duties and relationships of the citizenry. It may be used to decorate and ornament a simple dwelling-house, as one may wear a finger

ring or a brooch, but not to build one. It is above all that.

White pine is a delightful wood to work, as anyone can testify, who has ever driven a close-set plane over the surface or along the edge of a clear, straight-grained pine board. It is a delight to feel the keen edge of the bit bite into the soft wood, with so little force needed to actuate it, and to see the thin, translucent—almost transparent—shaving curl up through the stock of the plane in a long, graceful spiral, in curves as sweet as a pencil may trace. I remember once seeing a capable carpenter, a master of his craft, thus engaged. As he paused to clear the shaving from the bit, before drawing back for another stroke, and gazed for a moment upon the beautiful, white, satin-smooth surface, I heard him say—reflectively and reverently—"Well, the Good Man knowed what he was about when he made that stick."

Yes, white pine is a docile, smooth, and delightful material in which to work; but—or therefore—it has little character. It is too responsive to the demands upon it. You can shape it as you please and when you are through, it remains smooth and characterless. Give it any shape you please, then leave it in its natural state, uncovered by paint, and you have nothing but pine, no longer even white, for it turns a rusty red or a dingy gray. Age does nothing for it but disfigure it by stealing its clear, soft complexion. It is like a girl whose only beauty is in the texture and youthful coloration of her skin. Age soon withers it, and the charm is gone.

Paint it must have, and in a colonial house only one kind is permitted, and that brings us to white paint.

White is the sum of all colors, the physicists tell us. It is the sum of all, and it has the value of none. As if its component parts were prefixed in equal numbers by plus and minus signs, they have cancelled each other in their addition, and nought remains—æsthetically, if not scientifically.

Think of blue in the sky and in the sapphire, of green in the sea and in the emerald, of red in the rose and in the ruby, of yellow in the corn and in the topaz, of brown in the earth and in the autumnal oak, of orange in the fruit, of violet in the flower, and then think of—white. What are your reactions? You have run the gamut of sight sensation, and your æsthetic sense has thrilled and throbbed, and you have come to white, to which there is no emotional response.

When they tell us that white is the sum of all the colors, they state a scientific fact to which our reason submits, but which fails to convince our sensory intelligence. To it white is the absence of all color. The colors have substance and depth; white, merely extent and surface. It is a blank upon which color may be laid. It calls for color as the blank page calls for printer's ink.

From the faintest murmur of pearl gray, through the fluting of blue, the oboe note of violet, the cool, clear wood-wind of green, the mellow piping of yellow, the bass of brown, the bugle call of scarlet, the sounding brass of orange, the colors are music. White is

silence. Black is discord, but white is silence—let the physicists say what they will.

In a hospital ward or a “dental parlor” or a sanitary bathroom, in any place where only cleanliness is sought and a chance to detect any intruding colored object, let there be white. In a home for human beings, no. White is too clean and pure and chaste and sanitary to commerce with humanity, except when humanity is temporarily cleaned and purified—momentarily aseptized and dehumanized. No real human being can live up to—or down to—white paint. Every real human being with any self-knowledge and any appreciation of the æsthetic relationship between himself and his surroundings ought to know that white paint is quite too perfect and too good for human nature’s daily food. “Too good” in the sense of being too clean, too chaste, too pure—in any other sense, not good enough. Aseptize your mind and your soul and your heart, become sterile of thought and emotion, anæsthetize the pride of the eye and the lust of the flesh, become and be, for as long as you can stand it, a dehumanized being—and white may be the walls and the woodwork of your temporary grave; for temporarily you are dead, not alive. Living, breathing, loving, hating, fearing, coveting, lusting, cowardly, courageous, mean, selfish, altruistic, sad, joyful, ugly, beautiful humanity finds not its fit environment in white. It is not for nothing that we bury the dead in white and put white stones at their head and feet, for they are no longer human, they are cold, they are dead. They are empty of all that makes men men.

And the curious part of the matter is that when we paint our pseudo-classic architecture white, in imitation of its original, we are not imitating that original. The Greeks knew better. We commonly think of their buildings as of uncolored stone, because the pigments have faded from the ruins with which we are familiar. These ruins are but the bleached bones of their former selves. Their buildings glowed with color, for the Greeks were true artists and they knew that color is life.

Oak, on the other hand, has every good quality which pine lacks. It lacks docility and flexibility, because it has character and strength. You may not easily—hardly at all—fashion oak into the delicate shapes, the dainty curves, to which the fatal pliancy of the almost plastic pine lends itself, and seduces its designer. Carved or moulded oak has a dignity, a vigor, a solidity of appearance, that cannot be imitated in any other material. Pine has at least one rival in its field. Carvings made from it can be—and often are—counterfeited by that most noble, dignified, and august of all substances—putty.

In color, oak is unapproachable. Left to itself, it takes on by nature a succession of hues each more lovely than the last. It passes through a range of tones, warm, restful, consoling to the eye, appealing to the mind—until it reaches the supreme dignity of age in the almost black, when it is invested with an ennobling majesty. One may hasten to the desired effect by art or stop it at any desired stage in its long pilgrimage to its natural end. But one never paints it. The grain and

fibre of the natural wood are always apparent, as delightful to the eye and as intriguing as the irregular patterns of Eastern carpets. Did you ever see a library done in white—white bookcases and shelves? Did it look like a home for books? Did you ever see a library finished and furnished in oak, dyed by time or art in any of the rich, dark tones which oak is capable of receiving, which are natural to its domesticated state? Could you possibly choose to live with your books or to have your books live in the former, if the latter were available?

Oak is the only wood for a library. Mahogany is too suave, too genteel for any but the most delicate-minded books. So are the other fine-grained woods. Oak alone has the integrity of character and dignity of appearance which make it a worthy associate for the best in literature.

Brick for the walls, oak for the woodwork, these are the materials for men's houses. You will not have to paint them. Time will do that for you, as no human artist can. You can respect as well as love brick and oak, for they have the great qualities of strength, character, life, color, vigor, honesty, durability. In their best estate, in domestic architecture, they are to be found in the English country-houses, not in the pseudo-classic Georgian but in the older houses of the Tudor, Elizabethan, and Jacobean periods. When American architects have learned, as many of them are learning, to go to these for their originals and to modify them in such particulars as a changed climate and a different habit of life may demand, they will design houses that



will have beauty, dignity, durability, and a humanly æsthetic appeal that will be irresistible and permanent.

### LA FOLLETTE<sup>1</sup>

It will be difficult, and perhaps not necessary, to dissociate thoughts of La Follette from thoughts of the liberal movement that in the last battle of his life he tried to give organization and permanency to. It was clear during the last campaign to those who were not obsessed by partisanship that the very dominance of La Follette in the movement, the very utterness with which it all centered in him, was the assurance of its failure; for victory in 1924 was impossible, and La Follette was too old a man to build on for subsequent campaigns.

It still seems impossible that there shall not eventually be in this country a powerful political party of militant liberalism. It seems an eventual certainty that either the strictly two-party system must adjust itself to the logical need of conservative-liberal division, or, despite all our tradition, there will be three parties, or four, or five. But the immediate future has not promised it, and with La Follette gone, leaving not a single personality at all comparable to him as a potential leader, there is still less any early promise.

La Follette during a long career in the governorship and senate was a strong, able, consistent, courageous man. He was political minded enough to organize an invincible personal machine in his own state, and his

<sup>1</sup> Editorial from *The Des Moines Register*, June 19, 1925. Used by permission of the publishers.

political mindedness characterized much of his campaign speech making. Still, it was his side that he was presenting, not the other side, and why should he be held to a stricter standard of accuracy than his rivals and attackers?

In the senate, La Follette was a notoriously strong debater, who worked amazingly hard, studied amazingly long, took with exceptional seriousness every issue that interested him, and perhaps lost in persuasiveness, just as Edmund Burke did, by being too well prepared, by amassing too much argument, and by insisting on giving it all at length unedited.

It will be impossible to write any adequate history of this republic for the last forty years without many a mention of La Follette. He was one of the personalities of the period, with as much color as almost any man of his time. As to his personal charm, there is the fact that despite the bitterest of political enmities he was personally held in a good deal of affection among the senators whom for decades he had regularly exasperated and against whom he had fought in a singularly ungentle campaign.

## SOME PERSONAL QUALITIES OF FRANCIS PARKMAN<sup>1</sup>

BY BLISS PERRY

It is thirty years since Francis Parkman died. A few elderly Bostonians recall that gallant crippled figure,

<sup>1</sup> From *The Yale Review*, April, 1924. Used by special permission of the author and the publishers.

with the keen gray eyes and the chin thrust forward, as he marched rapidly with his two canes along Chestnut or Charles Street, stopping every few rods to rest against a fence. It was agony for him to walk, it was a worse agony to sit still. Yet his proud face gave no sign. He had a smile for an old friend and for every child, and if there were roses in any window, his eye quickened, but he hobbled on, through those streets already submerged by the tide of alien immigrants, a patrician, a Puritan of the Puritans, remote, inscrutable, indomitable.

Thanks to the autobiographical fragments which Parkman left to the keeping of the Massachusetts Historical Society, thanks to that Society's remarkable collection of his note-books and manuscript sources, and to Farnham's painstaking biography, we may know this reserved and secretive man better than did his contemporaries. We know now the history of that athletic but wrongly disciplined body, that passionate but hard mind, that unbroken will which made him choose his life-work at eighteen and follow it until he penciled on a few slips of orange-colored paper, in his seventieth year, his last notes for a revised edition. It is impossible here to tell the detailed story of his life or to weigh carefully his merits as a historian. Nevertheless, one may venture to point out a few personal qualities which entered into the very texture of his books.

Enough has been made of Parkman's boyish passion for the woods as related to his later development, but not enough has been made of his early reading in its relation to his task as a historian. The young Parkman

was a Romantic. He tells us in an autobiographical sketch that his first ambition was to be a poet, then a novelist, and that he turned to history as a third choice. He read Byron, Scott, Chateaubriand, Cooper. I find the trace of Byron everywhere in his earliest books, such as *The Oregon Trail* and *Vassall Morton*. When Quincy Shaw offered him three books to read at Fort Laramie in 1846—The Bible, Shakespeare, and Byron—Parkman chose, he says, “the worst of the three,” and *Childe Harold* happened to be the last book he read before his death. In *The Oregon Trail* and *Vassall Morton* you will find the very image of the Byronic wanderer and outlaw, the Byronic clash of the Primitive against the Civilized. Doubtless the middle-aged Parkman felt that there was too much Byronic rebellion and self-revelation in *Vassall Morton*, and was glad to suppress his unsalable novel. But Byron had taught him much. I have the greatest respect for the certificated professional historians of the present day, but I submit that some of them might still learn a little something from the art of the great poets and novelists.

One scarcely needs to say how much Parkman owed to Sir Walter Scott. Here was his pattern for portraiture-making, for picturesque grouping, for dramatic narrative. From *The Oregon Trail* to the *Half-Century of Conflict* how many a forceful personage, how many a march, a bivouac, an attack, are painted in the Scott manner! But I think that Parkman learned from Scott a more significant historical lesson than the mere art of picturesque narrative; namely, the secret of dispassionate fairness. For the Wizard of the North was a

very soundly documented wizard; an antiquarian who knew the value of personal narrative and family papers and government archives; a lawyer who could sift evidence; a historian who could weigh Jacobites and Presbyterians, kings and commoners, in the scales of equal justice. When Parkman came to his extraordinarily delicate task of comparing English and French civilizations, of appraising the merits of Jesuit and Puritan, of explorer and soldier, I think his judgment was all the more finely balanced, his sense of human values all the more penetrating, for his early training in Sir Walter's school. If you and I are ever tried for murder, we may well wish to have a Parkman and a Scott upon the jury; for if these gentlemen vote that we deserve hanging, we should be quite content to be hanged.

But Francis Parkman was far other than a mere reader of books. More than most historians, he coveted first-hand experience. He must see for himself. Even as a college student he followed on foot the old trail of Rogers the Ranger; he tramped back and forth across Northern New England studying the topography, the water-ways and the battle-fields of the Seven Years' War. To understand how his personal qualities affected his literary methods, the indispensable document is *The Oregon Trail*, dictated when he was twenty-three. He wanted a key to that "history of the American forest" to which he had already devoted himself, and he found it in the Far West of 1846. That journey gave him the clue to the Indian character, to the hunter, the bushranger, the pioneer. The college boy who had



built his own raft to float down the flooded Magalloway had already learned some of the obstacles that confronted Tonty and LaSalle. Long days of enforced idleness in Dakota wigwams helped him to understand the Jesuit Relations and the French archives. Henceforth he could check up his sources by what his own eyes had seen. That journey to the Black Hills may have fatally impaired his health, but its wholesome influence upon his mind can be traced in every one of his later books. Just as Charles Dickens's boyhood gave him the key of the London streets, Parkman's boyhood gave him the key of the wilderness.

The name of Dickens suggests another curious parallel between a writer's physical endowment and his chosen theme. The bodily and mental restlessness of Dickens, his sense of life as motion, as struggle, gives his novels their flashing, pulsing energy. Parkman's physical and mental energy was subjected to a more rigid control, for he was told that his sanity and even his life depended upon mastery of his emotions, and he never failed to keep himself in hand. It was the irony of his career that his disease increased this inner urge to action, while forbidding—often for years at a time—any real mental or physical exertion. The irony is not lessened, if we believe, with Dr. George M. Gould, who has made Parkman's case the subject of closest professional study, that the chief trouble was originally a peculiar form of eye-strain, which proper glasses would have relieved, or removed entirely. But whether his malady was curable or not, it certainly intensified his abnormal inner excitement in the presence of his



material. He wanted to tell the thrilling story of the struggle of two empires for the control of a continent—a struggle typified by racing ships, forced marches, Indian raids, swift reversals of fortune—the drama of clashing, changing civilizations. That this drama was enacted in the lonely forest only increased its fascination to a man who knew, as Parkman did, the secret of the woods. That secret is *expectancy*. You have in the woods, even more than in the great cities, the sense of “something evermore about to be.”

The motion-picture was unknown in Parkman's day, but this new art of our time suggests something of the fashion in which that restless forest-drama unrolled itself before his picture-making, his story-weaving imagination. If you can fancy a “movie” without sentimentality, a “movie” firmly documented, unwaveringly just, with every landscape sharply focussed, every portrait clear, every action motivated, then I submit that you would have something like the effect which Parkman's twelve volumes convey. And his nerves paid the price of his self-absorption in his theme. “The poet writes the history of his own body,” said Thoreau. But so does the historian, and every artist who puts himself into his books. It is as true of Tacitus and Carlyle as of Dickens and Victor Hugo. Parkman lived passionately with his characters for fifty years. With every instinct urging him to a life of action rather than contemplation, he was forced to sit for long years in his wheel-chair and see that splendid swift procession of his heroes pass—priests and soldiers, statesmen and savages, against a background of eternally living Nature

where the woods break into leaf and then turn to gold or scarlet, where the pitiless rains fall and the snow-drifts melt into the floods of spring—pageantry all, passing, passing, with men withering like leaves and newer generations pressing on, pageantry and heroism and martyrdom and dreams of empire, until that stormy September morning upon the Plains of Abraham when the dying General Wolfe knew that he had won.

To have had his first glimpse of that unforgettable story-picture in boyhood, to keep it steadily in focus through the tortured years of manhood, patiently adding his pitiful five or six lines a day, but never yielding to despair, never abandoning his theme—I maintain that that achievement of a motor-minded cripple was as gallant and glorious an exploit as anything achieved by any of Parkman's heroes.

Francis Parkman belonged, no doubt, to what New Englanders were once fond of calling "the old dispensation." He could not have accommodated himself to some twentieth-century conceptions. He distrusted democracy, and democracy is in the saddle, though here and there a dictator may be leading the horse. He disliked woman suffrage. He hated sentimentality, and sentimentality engulfs us. There is a demand just now in the United States that American history should be rewritten, not in the interest of Truth, but in the interest of some racial or religious or ancestor-worshipping group. I should enjoy hearing Parkman's comments on this contemporary insolence; for he commanded, in his rare moments of unrepressed indignation, a vigorous, not to say profane, vocabulary.

But it may likewise be true that Parkman would be deaf to some of the finer voices of the twentieth century, as he was certainly deaf to the more spiritual accents of seventeenth century mysticism. It would have been hard for him to think internationally, for he had, I imagine, less faith in World Courts and Leagues of Nations than he had in the sword, held by firm and able hands. Parkman was a Stoic, in philosophy as in life. He would perhaps retort that his life-work was not to dream of a new heaven and a new earth, but to give the actual record of the American wilderness. And we may say for him, what he would have been too modest—or too proud!—to say for himself, that he told that story as no other man could have told it, and that he served his generation best by living—as the dying Henry Thoreau said quietly—in “one world at a time.”

### THE PARADOX OF LINCOLN<sup>1</sup>

HERBERT CROLY

In listening to John Drinkwater's legendary drama of Abraham Lincoln, I found obtruding upon my mind an irrelevant and disconcerting observation. I was watching the performance of a play about the life of the man whom the American people have canonized as half hero and half saint. He had earned their gratitude by helping them to steer a true course into and out of a civil war, which, had they gone astray, would have shattered the moral and political continuity of American

<sup>1</sup> Reprinted by permission of the publishers and the author, from *The New Republic*, vol. xxi., p. 350.

national life. A new generation of his fellow-countrymen had just emerged as one of the victors in another war—one of the most bloody and costly which history has to record. Yet this play contained passages in which their national hero rebuked an attitude of mind towards the war of his day which no actor could have repeated with safety on the stage in any large American city during the war of our day. He said to Mrs. Blow, "You come to me talking of revenge and destruction and malice and enduring hate. These gentle people (the pacifists) are mistaken, but they are mistaken cleanly and in a great name. It is you that dishonor the cause for which we stand." No actor would have dared, we repeat, to speak these words on an American stage during the war. The prevailing opinion in America had yielded utterly to the obsession of fear, destruction and hatred which Lincoln rebuked in the person of Mrs. Blow. It treated the pacifists whom Lincoln defended as morally contemptible criminals. It foamed with abuse for those Americans who were trying to keep alive during the new war, as Lincoln did during the old, the spirit of "just and merciful dealing and the hope of love and charity on earth." The discrepancy between the moral attitude of contemporary America towards its war and the moral attitude of the greatest American national hero towards the war of his generation was flagrant and complete.

The contrast illustrates a characteristic of Lincoln's which his biographers have never sufficiently emphasized. His mind was capable of harboring and reconciling purposes, convictions and emotions so different

from one another that to the majority of his fellow-countrymen they would in anybody else have seemed incompatible. He could hesitate patiently without allowing hesitation to become infirmity of will. He could insist without allowing insistence to become an excuse for thoughtless obstinacy. He could fight without quarreling. He could believe intensely in a war and in the necessity of seeing it through without falling a victim to its fanaticism and without permitting violence and hatred to usurp the place which faith in human nature and love of truth ordinarily occupied in his mind. When, for instance, the crisis came, and the South treated his election as a sufficient excuse for secession, he did not flinch as did Seward and other Republican leaders. He would not bribe the South to abandon secession by compromising the results of Republican victory. Neither would he, if she seceded, agree to treat secession as anything but rebellion. But although he insisted, if necessary, on fighting, he was far more considerate of the convictions and the permanent interests of the South than were the Republican leaders, who for the sake of peace were ready to yield to her demands. In the same spirit he insisted during the war on continuing the fight until the South was ready to return to the Union without conditions and to free the slaves. But his determination to fight until the Northern army had overcome the obstacles to the vindication of the political objects of the war did not interfere in his mind, as it did in the minds of so many bitter-enders, with "the hope of love and charity on earth and the spirit of just and merciful dealing."



It is not only, however, that he harbored purposes, convictions and feelings which were incompatible one with another in the minds of other people. He expressed and acted on these usually incompatible motives and ideas with such rare propriety and amenity that their union in his behavior and spirit passes not only without criticism but almost without comment. His fellow-countrymen, who like to consider him a magnified version of the ordinary American and to disguise flattery of themselves under the form of reverence for him, appear not to suspect how different he is from them. He seems to them a simple man whose feelings, motives and words are composed of familiar and homely material and whose values they can sum up in a few simple formulas. He is a simple man in the sense that power, responsibility and intensity of personal experience never divided him from his own people who had none of these things. More than any other statesman in history he is entitled to their trust and veneration. But he was not a simple man as simplicity is ordinarily understood. He was an extremely complicated and sophisticated product of a kind of moral and mental discipline which sharply distinguishes him from his fellow citizens both of his own day and today. His simplicity was not a gift. It was the expression of an integrity of feeling, mind and character which he himself elaborately achieved, and which he naturalized so completely that it wears the appearance of being simple and inevitable.

The ordinary characterization of Lincoln as "a man of the people," who rose by his own efforts from the



humblest to the most eminent position in American life, interprets him as a consummate type of the kind of success which all Americans crave and many achieve. The superficial facts of Lincoln's life verify this interpretation, but it is none the less profoundly untrue. He did, of course, rise from the occupation of a rail-splitter to that of President of the American Republic. He could not have won the confidence of his fellow-countrymen unless he had appropriated all that was wholesome and fruitful in their life and behavior. He shared their kindness and good nature, their tenacity of purpose, their good faith and, above all, their innocence. His services to his country and the achieved integrity of his personal life depended on his being good natured, resolute, faithful and innocent. But these comparatively common traits were supplemented in his case by others of a very different complexion. By some miraculous flight of the will he had formed himself into an intellectually candid, concentrated and disinterested man and into a morally humane, humble and magnanimous man. These qualities, which were the very flower of his personal life, neither the average nor the exceptional American of his day or our day can claim to possess. Not only does the American fail to possess these qualities but he either ignores, misunderstands or disparages them. His deepest convictions stamp the average man with more energy and adaptability than his fellows as the representative democrat, and the ordinary aggressive successful climber as the admirable national type. Lincoln was not at all like that.

Yet his fellow-countrymen praise and reverence him just as if he was what they take him to be.

While Americans do not understand how complicated, many-sided and distinctively individual Lincoln is, his influence on them is the child as much of his many-sidedness as it is of his deceptive simplicity. They find in his words or in his actions, just as they do in the words and actions of Jesus, persuasive precedents for very different kinds of behavior. During the war, for instance, those who wished to fight on to the finish, those who considered it essential to keep political discussion alive and subordinate military action to political purposes, and those in whom war did not extinguish the spirit of fair play and good will—people who represented all these divergent points of view found consolation and support in Lincoln's deeds and phrases. In our own day he serves almost equally well as the prophet both of conservatism and radicalism. The National Industrial Conference Board has issued a leaflet, intended obviously for circulation among wage earners, in which Lincoln figures chiefly as the spiritual forerunner of Calvin Coolidge. They quote him as the advocate of hard work, thrift, the indefeasible right of private property and law and order, and the quotations are, of course, unimpeachably authentic. But the Labor party of New York carries on its letterhead an emphatic affirmation by Lincoln of the prior claim of labor as compared to capital on the product of industry; and the New York World reproduces a passage from the First Inaugural about the right of revolution, which, if uttered by an alien, would render him liable to depor-

tation and which would be condemned as seditious by the proposed Congressional legislation.

The interests, the sects and the parties all labor to exploit for the benefit of their own propaganda the name of Lincoln, but although they can usually find sentences and acts which they construe for their own benefit, the man himself as a spiritual force always breaks out of the breastworks of any particular cause. He never purveyed one particular political, moral or social specialty. His generation was particularly given to spiritual sectarianism and social crotchets. He himself was extremely accessible to generous emotions and humane ideas. But he was too complete a man to allow his mind to pass into the possession of any cause. And just as he freed himself from the obsessions of the reformer, so he was also too much of a man to yield to the weakness of a tolerant and balanced intelligence and take refuge in intellectual eclecticism. He was first of all himself. With the tact of moral genius he appropriated all that he needed from his surroundings and dismissed apparently without hesitation or struggle all that was superfluous and distracting. Whatever he appropriated he completely domesticated in his own life. The memory of Bismarck belongs chiefly to the German national imperialists; the memory of Gladstone belongs chiefly to laissez-faire liberalism; even the memory of Washington belongs more than anything else to the successors of the Federalists. But the memory of Lincoln belongs to all his fellow-countrymen who can guess what magnanimity is. Alone among modern statesmen, he is master of every cause and every

controversy which entered into his life. He did not flourish principles which he had not assimilated. He never relaxed his grip upon a truth which he had once thoroughly achieved. The action of his mind was always formative. Instead of being enervated and cheapened by its own exercise, as it was in the case of so many of his contemporaries and successors, it waxed steadily in flexibility, in concentration, in imaginative insight and in patient self-possession.

Hence it is that Lincoln is at once the most individual and the most universal of statesmen. In externals he fairly reeks of middle Western life during the pioneer period. No man could reflect more vividly the manners and the habits of his day and generation. He is inconceivable in any other surroundings. But with all his essentially and intensely middle Western aspect, he achieved for himself a personality which speaks to human beings irrespective of time and country. Already he is being more carefully studied and more discriminately appreciated in England than in America, and the interest of Englishmen is prophetic of that of other peoples. Wherever throughout the world democrats look for a hero or a seer whose life and sayings embody the spiritual promise of democracy, they will turn to Lincoln. They will turn to him because, essentially American as he was, and subject as he was to all the ambitions and distractions of a democratic political leader, he embodies none the less the permanent type of consummate personal nobility. He had attained the ultimate object of personal culture. He had married a firm will to a luminous intelligence. His

judgments were charged with momentum and his actions were instinct with sympathy and understanding. And because he had charged himself high for his own life, he qualified himself to place a high value on the life of other people. He envisaged them all, rich and poor, black and white, rebel and loyalist, as human beings, whose chance of being something better than they were depended chiefly on his own personal willingness and ability to help them in taking advantage of it.

Finally, Lincoln obtained the mastery of his own life not merely or chiefly as the result of tenacity of purpose and strength of will. When the Divine Comedy of the modern world comes to be written, we shall find all the houses in one of the suburbs of Purgatory occupied by people who were esteemed during life chiefly for strength of character. It was his intelligence and insight which humanized his will. Not only were his peculiar services to his fellow-countrymen before and during the Civil War born of his ability to see more clearly and think harder than the other political leaders, but the structure of his personal life and the poignancy of his personal influence depend most of all on the quality of his mind. It was his insight which enabled him to keep alive during the Civil War the spirit of just and merciful dealing and the hope of love and charity on earth. He knew that without just and merciful dealing human nature could not be redeemed in this or in any other world, and because he knew this, the goblins of war could not lead him astray. Both the integrity and the magnanimity of his life were



born of this humane knowledge. Others willed when he did not, and much good their willing did. But he knew when others did not know and he knew the value of knowledge. In a neglected passage of one of his last speeches he recommends to his fellow-countrymen the study of "the incidents" of the Civil War "as philosophy to learn wisdom from and none of them as wrongs to be revenged." That sentence furnishes the key to the interpretation of Abraham Lincoln. He studied the incidents of his own life, of the lives of other people and the life of his country not as an excuse for revenge or for any kind of moral pugnacity or compensation, but as a philosophy to learn wisdom from. His fellow-countrymen revere his memory, but in studying the incidents of their own war they are far from either accepting his advice or following his example.

## LIFE OF A WAR CORRESPONDENT<sup>1</sup>

BY SIR PHILIP GIBBS

The four and a half years of war were, of course, to me, as to all men who passed through that time, the most stupendous experience of life. It obliterated all other adventures, impressions and achievements. I went into the war youthful in ideas and sentiment. I came out of it old in the knowledge of human courage and endurance and suffering by masses of men, and utterly changed, physically and mentally. Romance

<sup>1</sup> From *Adventures in Journalism*, pp. 260-262. Used by permission of the publishers, Harper & Brothers.



had given way to realism, sentiment of a weak kind to deeper knowledge and pity and emotion.

Our life as war correspondents was not to be compared for a moment in hardness and danger and discomfort to that of the fighting men in the trenches. Yet it was not easy nor soft, and it put a tremendous, and sometimes almost intolerable, strain upon our nerves and strength, especially if we were sensitive, as most of us were, to the constant sight of wounded and dying men, to the never-ending slaughter of our country's youth, to the grim horror of preparations for battle which we knew would cause another river of blood to flow, and to the desolation of that world of ruin through which we passed day by day, on the battlefields and in the rubbish heaps which had once been towns and villages.

We saw, more than most men, the wide sweep of the drama of war on the Western front. The private soldier and the battalion officer saw the particular spot which he had to defend, knew in his body and soul the intimate detail of his trench, his dugout, the patch of No-Man's Land beyond his parapet, the stink and filth of his own neighborhood with death, the agony of his wounded pals. But we saw the war in a broader vision, on all parts of the front, in its tremendous mass effects, as well as in particular places of abomination. Before battle we saw the whole organization of that great machine of slaughter. After battle we saw the fields of dead, the spate of wounded men, the swirling traffic of ambulances, the crowded hospitals, the herds of prisoners, the length and breadth of this frightful

melodrama in a battle zone forty miles or more in length and twenty miles or more in depth.

The effect of such a vision, year in, year out, can hardly be calculated in psychological effect, unless a man has a mind like a sieve and a soul like a sink.

Our headquarters were halfway between the front and G. H. Q., and we were visitors of both worlds. In our chateau, wherever we might be—and we shifted our locality according to the drift of battle—we were secluded and remote from both these worlds. But we set out constantly to the front—every day in time of active warfare—through Ypres, if Flanders was aflame, or through Arras, if that were the focal point, or out from Amiens to Bapaume and beyond, where the Somme was the hunting ground, or up by St. Quentin to the right of the line. There was no part of the front we did not know, and not a ruined village in all the fighting zone through which we did not pass scores of times, or hundreds of times.

We trudged through the trenches, sat in dugouts with battalion officers, followed our troops in their advance over German lines, explored the enemy dugouts, talked with German prisoners as they tramped back after capture or stood in herds of misery in their "cages," walked through miles of guns, and beyond the guns, saw the whole sweep and fury of great bombardments, took our chance of harassing fire and sudden "strafes," climbed into observation posts, saw attacks and counterattacks, became familiar with the details of the daily routine of warfare on the grand scale, such as, in my belief, the world will never see again.

We were visitors, also, to the other world—the world behind the lines, in G. H. Q., in Army Corps and Divisional Headquarters, in training schools and camps, and casualty clearing stations and billets in the “rest” areas, remote from the noise and filth of battle. From the private soldier standing by a slimy parapet to the Commander-in-Chief in his comfortable chateau, we studied all the psychological strata of the British armies in France, as few other men had the chance of doing.

But all the time we were between two worlds, and belonged to neither, and though I think our job was worth doing (and the spirit of the people would have broken if we had not done it) we felt at times (or I did) that the only honest job was to join the fighting men and die like the best of British manhood did. Our risks were not enough to make us honest when so many were being killed, though often we had the chance of death. So it seemed to me, often, then; so it seems to me, sometimes, now.

### THE ALMIGHTY MINUTE <sup>1</sup>

BY PERCIVAL WHITE

Every nation has been the slave of some besetting idea. The Egyptians were slaves to the idea of life after death, the Greeks to the idea of beauty, the Romans to that of conquest, the Mediævals to that of the Church, the Germans to that of autocracy, our fathers to that of money.

<sup>1</sup> From *The Atlantic Monthly*, July, 1920. Used by permission.

We are slaves to the idea of time.

Time is the tyrant of our lives. It is the one god we serve implicitly, universally, exclusively. Art we slight, poetry we abandon, religion we pass by. Health we neglect, beauty we disdain, love we mock. But time we worship.

Time prescribes our every act and deed. We dare not move without consulting Time. Our fathers took Time by the forelock; but Time takes us by the forelock, and he spares us very few of its hairs.

Cartoonists still portray Time as a doddering old man, with an hour-glass and scythe. But cartoonists cling notoriously to the obsolete. Anyone else would paint him in the fulness of his youth, with a stopwatch for keeping tabs on us, and a machine-gun to mow us down.

There are some people, it is true, who grow up with the notion that their time is their own. If there is anything, they argue, which is free, it is time. Time, they aver, is to be had in abundance and without stint. But the maturer they grow, and the further they progress, the more they appreciate that, when it comes to time, they are poverty-stricken. For time is the most precious thing in the world.

Wherever possible, we reduce all things to a time basis. Time is our prime standard of measurement—and, in these days, there is nothing we do not measure. The time-variable has crept into every equation of our existence. We can hardly state a thought or a conclusion without bringing in the element of time. The

scientist has recently smuggled the time-factor even into Newton's law of gravitation.

We eat by time, sleep by time, work by time, play by time. We record our accomplishments, not in terms of pleasure, or of permanence, or of satisfaction, but in terms of time. We plan our futures, not according to friends, or happiness, or whim, but with reference to our supply of time.

We even measure the distance from this town to that, not by the number of roses along the wayside, or by the sweet thoughts which have coursed through our minds on the journey. We do not measure distance even in miles. . . . certainly not; miles to us are as nothing; we measure it in hours, minutes, and seconds.

When we wish to talk about accomplishment without whispering the august name of time, we refer, but with almost equal reverence, to efficiency. Efficiency, being a standard of measurement, in addition to being the high priest of time, is popular. In fact, efficiency is probably the most popular abstract thing we have.

Efficiency is fondly regarded in the American mind as the greatest contribution of this age to civilization. It is deemed an agency for good, a thing one cannot have too much of. And so, since procrastination is the thief of time, we make efficiency the policeman who catches the thief. Or, to put it into technical phraseology, efficiency is what you did do, divided by what you would have done provided you had grown up smarter than you are.

Efficiency is a lightning calculator, by which you may convert time into anything you like, and read the



answer in percentages, to the third decimal place. By its means, for example, you may change minutes into dollars, which is, after all, the thing most of us are trying to do.

Time, indeed, is money, as our forebears were fond of saying. But we have gone a step beyond that: we have learned that money is time.

Yet there is danger in these glib conversions. Money is a tangible thing. The more you save, the more you have. But time is far more subtle stuff. Saving it does not imply having it. As soon as a man seriously starts saving time, make up your mind that he will no longer have a moment to spare.

Time, not money, is our be-all and our end-all. Time is the thing each one of us is working for, praying for, and making his money for. The almighty dollar is giving way to the almighty minute. Doubtless a fitting retribution has overtaken the old lady who declared that the only thing time was good for was to rent houses by.

Ask the man of the hour for anything tangible, and you will find him generous. Ask him for his time, and you will find him a churl.

If the business man sees a device for saving time, he will have it, at all costs. All great inventions of this age have been time-saving inventions. They are great inventions because they save time. These uncanny contrivances machinate to accomplish in minutes what formerly took us hours, or even days. (Paradoxically, the more time-saving inventions you have about, the less time you have to spare; but that is beside the point.)



We do not call, we telephone. It is so much quicker. We do not travel, we telegraph. It does not take so long. We do not pen our missives, as of yore, polishing, perfecting, and aiming at elegance, spinning each thought into a cunning phrase, weaving each phrase into an intricate pattern, and embroidering the finished fabric with well-turned figures and cadences. Far from it. We spill our half-digested ideas into a rubber spout. This conducts them into a machine. The machine pours them again into the ear of a girl, who lets them run instanter out through her finger-tips into another machine, where they solidify into print at the rate of two words a second.

The letter is sealed by machine, stamped by machine, and addressed by machine. It drops a dozen stories in a mail-chute, is collected by automobile, postmarked automatically, and carried by aeroplane to its destination. It is again postmarked by machine, delivered by machine, and slit open by machine. A machine-like secretary places it on the desk of its recipient, or, to save him a quarter of a minute, tosses it into the wastepaper basket, whence it is collected, baled by machine, crushed into pulp by machine, and machined into paper again, ready to start afresh on its endless cycle. The process is infinitely more complicated than in the days of the stagecoach or the pony express; but think of the time that you save!

What becomes of the time you save, no one can tell, not even our new-fangled time-study artists. For, although we have learned a great deal about saving time, we have learned little or nothing about spending it.

Despite its recent origin, the effect upon the world of the Time Idea has been incalculable. More material progress has taken place in the past century than in all the rest of history put together.

This process of progress has the same kaleidoscopic quality observable in the cinematograph, which, by-the-bye, is another of the marvelous time-saving inventions which consume the few free moments still remaining to us. Let us watch this progress of humanity, era after era, each change gradual, lumbering, slow, every accomplishment attained only at the expense of the greatest suffering and travail. But look! Now, as we get toward the end of the nineteenth century, we noticed a marked quickening of the tempo. All at once, the speed becomes greater and greater, until at last, as the film races past the lens, one can hardly follow the break-neck antics on the screen. It is as if the motion-picture operator, growing weary of the plot, were turning the crank at double-quick, in his anxiety to conclude the performance.

What makes him turn so furiously? Why does he hasten the picture to a close? A discussion of these questions might prove interesting; but time will not permit.

The universe, in these days, is stepping lively, please. The world spins faster than it used to. Into one lifetime we concentrate ten lifetimes. The problem the American sets himself is to see, not how much he can get out of life, but how much he can get into it.

It is a killing pace. It changes boys into men at seventeen, makes men middle-aged at thirty-five, and

brings on old age at five-and-fifty. Old age, indeed, like carpet slippers and wooden Indians, has gone out of fashion. There are no old men about you. They, like other obsolete machinery, have been relegated to the scrap-heap.

It is a killing pace, but we must keep it up, or fall and be trampled on. The struggle for self-preservation in America is fierce and merciless. It is a grim struggle. It tingles with electricity. Men revel in it. It stimulates them to the point of intoxication. It spurs them to an effort so intense that it at last becomes an end in itself. It is the thing they live for.

Not satisfied with obtaining a competence for themselves, they aspire to take away the share falling to others, so that the resulting unbalance makes competition keener than before.

This is the thing we know as business. Business is not a part of American life; it *is* American life. The American business man devotes 1,440 minutes a day to business. Before daybreak, an alarm-clock wrests him from his fitful business dreams. He gulps down business news along with his eggs and coffee. He plans business on his way to the office. His morning is spent in reading business, dictating business, and talking business. He keeps a business engagement for luncheon. Afterwards, he rushes back to business, where he routes himself, schedules himself, and despatches himself, as if he thought he were an express train.

After everyone else has left the office, he wraps up his business, and carries it home in a brief-case. He arrives late, sits down to dinner, and stares glassily into

space, conjuring up phantoms of business. A business acquaintance interrupts his preoccupied meal, by calling him on the telephone. Ten minutes later he returns to the table, too distraught to eat, and discusses business with his wife. He spends the evening poring over budgets, reports, and trade-publications. He goes, at last, to bed, which is, he finds, the most efficient place of all in which to work out business problems.

He has no friends but business friends, no interests but business interests. He spends his little span saving time, in order that he may put forth more energy in a further attempt to save more time, and so on, until he has not a minute left to bless himself with. His whole existence is one unremitting race against time.

From this tremendous acceleration of life, the American has no escape. Not one of us can quarantine himself against the mania for speed. There is nothing we have not sacrificed in pursuit of our time-serving ideals. We have, even now, enacted the prohibition of our last respite, that we may save time more zealously. It is no more possible for us to resist the Time Idea than it is for the characters on the film to retard the speed of its reproduction.

It is all the trend of evolution, and there is no use trying to stop it. One would be less successful than Joshua, in his similar attempt.

And so we shall continue to be hustled through lunch-rooms and herded through cafeterias, until we become chronic dyspeptics. We shall be badgered with telegrams, bombarded with "extras," and bawled at by bell-boys, until we fall victims to nervous prostration. We

shall be battledored in elevators and shuttlecocked in subways, joggled in taxicabs, jostled in street cars, and jolted in Pullmans until we succumb to apoplexy. And we shall be kept everlastingly on the go until, arriving at last at our untimely destination, we are shipped off in a sixty-horse-power hearse to the only peaceful place we have ever known. For thus we shall have served the god of Time.

### PLACE FOR PLAY<sup>1</sup>

The marked increase in the number of youthful offenders against the law, even those charged with serious crimes, must be regarded with great concern, especially by women.

The police in New York City report 60 per cent more juvenile delinquents for the first quarter of this year than for the same period last year. Recent figures of prisoners in New York City institutions show that nearly one-fourth were boys under sixteen, two-thirds under twenty-one and three-fourths under twenty-eight. This is said to be typical of the rest of the country.

Authorities who come in contact with these cases put the blame on lack of proper home influences and religious training, but the remedy is not so easy to find as that would imply. Home influences are not the same today that they were even a generation ago, for reasons that are economic and social. The great massing of life in the cities has changed the physical characteristics of

<sup>1</sup> Editorial from *The Woman Citizen* of May 2, 1925. Used by permission of the publishers.



the home. Apartments have crowded out houses. Play spaces have almost vanished.

Young people, and especially boys, need space in which to stretch their muscles. They need a safe outlet for high spirits and daring adventure. They also need privacy and individual training. It is impossible for most parents of today to provide any of these things for their children. Homes have not room enough so that a mother can make her boy's friends welcome, and he finds his gang outside. Where is the substitute for the hayloft and the swimming hole of the country or the big backyard of the town? They are not to be found in the movie or the dance hall.

The truth is that the world in which we live has changed and we have not adjusted this new environment to children and young people. Since we cannot supply the needs of space and wholesome amusement for our children individually, we must do it collectively. Religious training and the teaching of high principles need to be accompanied by opportunities for children to work off high spirits where they will do no harm and to find adventure legitimately. It is a big task, but it must be met and mothers must take a hand in it.

## A SOLILOQUY ON VOTING<sup>1</sup>

BY L. P. JACKS

The discovery that voting is a better method of settling disputes than fighting is considered the peculiar achievement of the Anglo-Saxon race. Unfortunately

<sup>1</sup> Reprinted from *Realities and Shams*, by L. P. Jacks, by permission of the publishers, George H. Doran Company.



it has led to the notion that the settlement of disputes is the essential business of human life, until, in course of time, disputing, or, as we say, discussion, has itself come to be regarded as the most important occupation of man. But the best things of life are not attained by disputes nor by settling them. They are attained in amicable fellowship, by the exercise of common sense, kind feeling, and good manners—to which perhaps may be added the thing called “genius”—though this is only a rare form of common sense. They are such things as art, beauty, joy, friendship, self-respect, family affection, and the love of man and woman—matters in which voting is out of the question.

Even as a mode of settling disputes the vote does not possess the virtues commonly ascribed to it. For each dispute which it enables us to settle it causes many more. Most of the quarrels which absorb our intelligence, or drain it away from far more important matters, turn precisely on the question of what we are to do with our votes. True, we are enabled by the vote to carry on these quarrels without the shedding of blood, except, as Carlyle said, for a little from the nose at election times. But the absence of blood from our quarrels does not prove that the quarrels are good for us, nor that we are well advised in spending on them the energies that are needed for greater things.

The fighting cult and the voting cult have this in common, that they both attach exaggerated importance to the settlement of disputes, the Sword or the Vote being the rival instruments for achieving this. The cults further resemble one another in producing, by

over-emphasis on their respective industries, a grave neglect of common sense, kind feeling, and good manners. That this is so, few persons would deny in regard to the fighting cult; that the voting cult works in a similar manner we may presently come to see. Whichever method we adopt, we multiply quarrels, with bloodshed or without—which latter is generally, but not always, the lesser of the two evils. When this has been widely recognized we shall perhaps turn our attention to devising some form of the common life in which disputes are less likely to occur in the first instance—a proposal pointing to a régime of common sense, kind feeling, and good manners, combined with a minimum of voting.

There was a time when everyone who fancied himself a man carried a sword or a cudgel. Nowadays everybody who fancies himself a man (or a woman) claims a vote. The swords and the cudgels have been given up. Will the votes follow suit?

For the present there seems no prospect of this. The tendency of our time is in the opposite direction. There are many, indeed, who resist further extensions of the franchise, but I have never yet heard of anybody who would voluntarily relinquish his own. On the whole, so far as one can see, the extension of the franchise is bound to go on to its limit. And this is a thing to be desired, especially by those who are heretics in respect of the voting cult. The comparative insignificance of the vote as an instrument of human progress will never be fully realized until everybody who wants it gets it. For this reason the heretic welcomes the accession of

women to the electorate, though he feels they are worthy of something better, and is disposed to apologize for the meanness of the gift. Nothing has tended more to maintain the inflated reputation of the vote than the refusal of it to women. Many have thought that women, on being enfranchised, would be the first to realize how inflated a reputation it has. They have always been the superiors of men in the three qualities which are the main sources of human progress—common sense, kind feeling, good manners—and on discovering, as they soon would do, the deadly blight which “politics” cast on these things, they might raise an outcry that would bring us all to our senses. This expectation has not yet been fulfilled, but perhaps it will be hereafter.

At all events, it is instructive to ask ourselves whether votes are really worth the fuss we make about them. We might reflect on all the great achievements of mankind which have *not* been accomplished by means of the vote—for example, the Bible, the Parthenon, the Greek Drama, Roman Law, the Catholic Church, the Divine Comedy, the Discovery of America, Shakespeare’s Sonnets, the Invention of the Printing Press and Steam-engine, the French Revolution and the Population of the Globe; and then side by side with these we might make out a list of the mighty works of the vote; finally asking ourselves which of the two achievements is better worth the trouble bestowed upon it. How little of what gives lasting value to life is due to the voting industry, and how much to common sense, kind feeling, good manners, and their like; and again, how

much that has the contrary effect of making life a burden has been voted into existence by people who were deficient in those admirable qualities! From this it would be a short step to the conclusion that the over-emphasis we have placed on the vote is responsible in no small measure for the present deplorable decadence of the arts and for the singular dearth of great men in the modern world.

The arts wither because the life, the energy, the faith they require are all drained off into politics, debating societies and legislation. Yet politics, debating societies and legislation, even at their best, will never confer upon mankind one tithe of the happiness that comes from the creation of beauty. This is one of the most certain of truths. The voting cult forbids men to believe it, and if they do believe it treats them as faddists. What chance have the arts in such an atmosphere? As to the great men, how can they survive when every little man holds a public license to put them down? What spectacle more tragic than that of a man with a great soul being voted upon by a crowd of men with little souls! It is at such moments that we hesitate in deciding whether fighting or voting has done more harm to mankind. The fighters kill the body; but the voters kill the soul.

"An education which shall train the citizen in the right use of his vote." Yes: but let it train him also in the right use of his fingers, his senses, his whole body, his wits, and his immortal soul. Why should "the use of his vote" be given priority to these things?

THE AMERICAN EMPIRE <sup>1</sup>

American exports exceeded our imports by \$970,000,000 in the year 1924, according to statistics published by the department of commerce. In the same period our foreign investments increased by one billion dollars, so that they have now reached the prodigious total of nine billion dollars, which is just nine times as much as the total in 1914. If government loans are added to this sum the world owes us some twenty billion dollars. If we should continue to increase our holdings in foreign enterprises at this rate for another few decades it is quite within the range of possibilities that America would become the most feared and envied and therefore the most hated nation in the world. We will then be in the position of living in a paradise which is partially maintained by tribute pressed from subject peoples. Such a position would be the more dangerous to the peace of the world because the average citizen will be so absolutely oblivious to the economic processes which make him the citizen and the beneficiary of a great world empire, and these processes will therefore be practically free of the control of public opinion or political policy.

There are political economists in Europe who assert that the modern world knows only one real empire and that is the financial empire of the United States. Bertrand Russell predicts that America will maintain peace in Europe for at least fifty years by controlling the

<sup>1</sup> Editorial from *The Christian Century*, June 25, 1925. Used by permission of the publishers.



purse strings of European governments. This seemed a rash prophecy when it was made, but the recent events have partially validated it. Ambassador Houghton's recent warning to European governments that American credits would be restricted if they did not continue policies of conciliation shows that the political tendencies are in this direction. The price of this kind of peace would of course be the undying hatred of the European peoples. Already there are signs that a pan-Europeanism is forming on the continent with a particular animus against the two great creditor nations, England and America, and more particularly against the latter.

All this may outrage the good American citizen who cannot understand why nations should hate us just because we have been good enough to lend them money when they were in dire distress. But this naïve attitude of the average citizen is precisely what makes the whole situation so ominous. American financiers may be altogether within their rights when they refuse to give France any more money except she meet certain of their conditions designed to safeguard their investments. But that will not prevent certain political factions in France from raising the cry of foreign domination. The American agent-general of reparations may be altogether logical if at some future date he makes some stipulations in regard to the domestic budget of Germany in the interest of reparations or in the interest of some of America's investments in German industry, but his efforts will produce the same reactions of resentment, as such efforts did in the case of Austria.



What will seem to the American business man as legitimate protection of his interests will appear to the economically subject nations as unwarranted foreign usurpation. The radicals in Germany speak of the Dawes plan as a transfer of masters, American bankers having been substituted for French generals. If France should not secure the expected reparations from Germany it is not improbable that she will blame this failure upon America; for German industry was put on its feet with American capital and the interest on this capital is a first charge on the industry, preceding even reparations. The French view of the situation will seem to be supported by the fact that American interest rates are very high. Again the American business man has a good reason for these high rates, but the French and German interests in the transaction cannot be expected to see it in the same light.

The whole situation simply shows that we are in the precarious position of exerting more power than we know we possess and exerting it through the logic of economic laws and not by the free decision of public opinion. We are a nation of economic experts and political novices. We think that every political question can be settled in a "business-like" manner, which simply means that we are not willing to regard the complexities of international relations. Our political isolation will continue to aggravate the peril of this anomalous relation to the world. We will be controlling the world even while we disclaim having any particular interest in its affairs.

There is no easy way out of our problem. It may be

that peace is impossible as long as the economic life of the world operates upon the present nationalistic basis. Certainly the least that can be said is that a nation which wields as much power as we do ought to be more ambitious than we are to acquire the arts of political life. The position of America is simply an example of the whole tragic circumstance of modern civilization: we have more power than we know how to use and live in a larger world than we can control. The future of our civilization in general, and of American welfare in particular, depends on the cultivation of sufficient moral and spiritual imagination to lift world relations out of the sphere of relentless impersonal logic into the sphere of human and personal understanding.

No power of sentiment, however sincere it may be, will be able to save us from the frictions which our economic relations are making inevitable if we do not learn how to put the highest kind of political intelligence into the service of pacific purpose. Since the average citizen lives in a world in which all men are contributing to his well-being, it behooves him to study that world and learn to know and to respect the rights and interests of other peoples. Walter Lippmann, the editor of the *New York World*, recently declared that the foreign news published by the average American newspaper was placed in the paper by the editor as a concession to the ideals of his craft and with the firm belief that the average reader had no interest in it. If this statement should be true, and every evidence seems to justify it, it discloses a sorry picture of our American democracy. The future peace of the world may ulti-

mately depend upon our ability to give the American electorate a degree of political intelligence commensurate with its world responsibilities.

### FERGUSON—REX<sup>1</sup>

BY MACGREGOR JENKINS

Middle Age stood before the counter of the College Drug Store and examined with reflective eye the display of college insignia ingeniously wrought on banner, pipe, and shield. The panoply and regalia of youth, the splendid uselessness of most of the articles, the tragic solemnity of it all, filled him with longing for a time when these, and not an impaired digestion and shattered nerves, were the realities of life.

The early twilight of a winter afternoon had fallen on the quiet college town. Groups of students passed the glare of the windows, boyish laughter and youthful jest marked the close of the day during which countless parental hearts had followed these boys, in imagination, to and from the classroom and shared with them their work and play. This winter day counted among its most blessed memories the thousand and one self-denials and personal sacrifices of a thousand parents, that these loitering feet might continue to tread the streets of this little college town and that these boyish voices might continue to fill the twilight air with laughter and song.

The door opened and in a whirl of snow a young man entered. He was only a boy, but he came as a monarch

<sup>1</sup> From *The Atlantic Monthly*, September, 1924. Used by permission.

might enter the home of a humble subject. As he shook the light snow from his capless head and from the collar of his leather jacket, he smiled a casual greeting to the clerk behind the counter and glanced with pleasing frankness, but without a ray of interest, at the unfamiliar middle-aged figure at the pipe counter. With entire accustomedness he stepped behind the counter and slipped a package or two of cigarettes into his pocket. In leisurely circuit of the store, he acquired a bag of salted nuts, a box of matches, and a few other necessities of the moment. Then he lounged to a stool at the soda fountain. The clerk, anticipating that this would be his last stop, stood, awaiting the inevitable order. "The usual" was all the description necessary, and forthwith he was supplied with an amazing combination of fruits and syrups and ices of which he disposed slowly and silently. This done, a fresh cigarette was lighted and, stopping only to view with appraising eye the feminine beauty and pulchritude in an advertisement of the picture at the local movie-house, he nodded a farewell. He turned a moment at the door to murmur, "Charge Ferguson," and disappeared. The clerk made some entries in a dog-eared book and turned to other duties.

Middle Age watched with a curious sense of humility the slender figure of the boy as it melted into the darkness of the street. Surely he never handled himself in that way. He felt a little as if a splendid pageant had passed; he recognized that feeling of reaction that comes when the last glittering wagon has gone by in the circus parade, or when the last soldier

has hurried along trying to march in step to a distant band. He stood silent and for the moment depressed, and then he knew what the feeling was and whence it came. He recalled a coronation procession in a European capital. That was all. He knew now what had happened. Royalty had passed. The youthful king, the hope of his nation, had shown himself to his subjects, and was even now immersed in the duties of the court. Yes, the young king had passed and for a moment the dull eyes of Middle Age failed to recognize him.

As Middle Age walked with cautious step over the ice and snow, he pondered on what he had seen. What of this gallant young king, what manner of man was he, what of his court? To what advisers would he lend his ear? How would his kingdom prosper? How sure is the vision of those fearless eyes? As he tapped the frozen ground with his walking-stick he found his ears ringing with that cryptic phrase, "Charge Ferguson." How simple it all was! Those magic words had placed at youth's behest the entire glittering pharmacy. But who was Ferguson? The unseen elder Ferguson who acted as royal treasurer and met these drafts on the royal exchequer? Middle Age wondered if the royal moneys were being wisely expended.

These questions could be answered only by acquaintance with Ferguson, and to this task Middle Age devoted himself for many weeks. The Royal Personage was not difficult of approach. He met advances with the same disarming self-assurance with which he purchased his cigarettes. He looked into the eyes of Mid-



dle Age and alleged Experience with a disconcerting frankness. He treated the whole episode of this strange acquaintance without concern and without interest, but from beginning to end with faultless and unfailing courtesy. If he did not seem abashed by the evident interest of his new friend, he certainly did not swagger. He never posed, he never evaded, he never condescended. The whole matter is now lost to him in the intricate and pressing life about him, and Middle Age has become, no doubt, a blurred and indistinct figure in the crowded canvas of undergraduate life.

Not so Ferguson—he stands out as clear as a cameo in the mind of his inquiring friend. It is this unforgettable figure, this graceful, ardent, intelligent, but often mistaken and hence much criticized, Heir of the Ages that I shall attempt to sketch. It is wise and right that we should be interested in him; he will soon inherit his kingdom and we shall all soon be under his sway. It is meet that we be concerned about him, and proper that we should see if the kind of example and instruction we have given him are the best we have to offer.

In the first place, Ferguson is no mean and unattractive figure from the eugenic standpoint. He is better made, better built, better put together, and carries himself better than the youth of past generations. Middle Age bungled through hours of gymnasium exercise under the watchful eye of a skilled and kindly trainer. He dressed and bathed with Ferguson. He watched him do his work, he saw him lounging in the dressing-rooms, and he cheered him in the heat of pas-



sionate striving for victory. He saw him win and, what is better, saw him lose like a gentleman. It is an experience not without its embarrassments to Middle Age to stand with a dozen Fergusons in shameless nudity and discuss a book, a play, a victory, or a defeat. You feel singularly out of place, for you are a rapidly decaying mortal and you find yourself standing with the young gods on the slopes of Olympus. No, dear friend, so anxious about the physical degeneration of the race, you need not worry. Ferguson will carry on.

So much for the body. How about the head? Ferguson prefers to call it his "bean." Here we are on less sure ground. Middle Age had concerned himself with other matters so long that an accurate appraisal of Ferguson's bean is a difficult matter. This much is sure. Ferguson wants to know. He does not accept the formulæ of past generations; he accepts them only when he thinks they are proved. He has become skeptical about so many of them that he has a habit of throwing them out of court without proper consideration. This is bad for Ferguson and annoys his elders and his preceptors. He must be shown the unwisdom of doing so. He is interested in very different things from those that concerned his father. On the whole they are much better and more important things. He can hold his own in a discussion without losing his temper better than his elders, but he has a tendency to stick to the weak side of a case after he knows it is lost. He likes lost causes. He will look in the eyes of the Professor of Economics and tell him he does not agree with him; this annoys some Professors of Economics and

Ferguson is called "rebellious." He is less rebellious than any type of man alive, for the simple reason that he feels in the bottom of his heart that the thing is not worth the trouble of rebelling against. He knows it will all come out in the wash, and the real facts emerge if he only thinks and talks about it enough. That is one reason why he is so difficult to argue with. The principal trouble with Ferguson's bean is that he allows this habit to lead him astray. He is so sure of the unimportance of a host of unimportant things that he fails to see, sometimes, the tremendous importance of some really important things. That is one of the great problems in the training of Ferguson for the throne.

There is a certain type of elder that insists that Ferguson is "radical." He is. But bless your dear anxious heart, brother, he is at the same time the most conservative, tradition-bound, and stand-pat of mortals. Take a look at the little world he has built. Examine its laws and its customs. He has a code more rigid than the laws of the Medes and Persians, more inflexible than Draco at his best or worst. He believes in a Code, in an Established Order, he trusts in Authority and worships Order. He is a little uncertain about the wisdom of some of the regulations governing the outside world, but he has no doubt about the wisdom and validity of his own. When he comes to the throne he will see that the same order prevails and that authority is respected as fully, and rather more fully, possibly, than it is now. The statute book may change in detail, but the underlying principles will never be altered by Ferguson.

His attitude toward his teachers and his studies baf-

fles a dull observer, but in the main it is governed by his predominating intellectual trait. He admires manhood vastly more than scholarship. He has yet to learn the important place pure scholarship holds in the general plan of things. He is sure to learn this in time. If he finds in the scholar the man he is looking for, the scholar can lead him anywhere. But the tremendous forces that have made Ferguson what he is have left him where he refuses to see the scholar if the man is not there. It is said that he will learn nothing. No candid observer could claim that the outward and visible signs of mental accretion are overwhelming, but in private conversation Ferguson displays at times a disconcerting clearness of vision, and a wealth of real understanding about a lot of things that he regards as important. A great amount of it he gets in the classroom, but alas! the hard-working instructor too often is left in ignorance that the seed has fallen in fertile ground. Ferguson does not care for facts as facts. He is interested in principles. The problem is to show him that the facts illustrate the principles.

Ferguson's attitude toward what is called vice is a curious thing. He is an utterly sophisticated person and will talk with entire frankness. He does not drink half what his father drank, and not a tenth of his sainted grandfather's daily potion. But when asked why he does not drink madly, wildly, as all college students are supposed to, his explanation is a little difficult to follow. He does not regard the use of liquor, its purchase, possession, or manufacture as a crime. No amount of legislation or vociferation on the part of the

moralist can make him do so. But he knows that on the whole it is a bad practice, and with that curious half-blind clear-sightedness that is his salvation he promptly places its excessive use in the limbo of the things that "are not done." Temperance has found a place in his involved ethical code because he has found it good. Good for himself, good for others, and good for the little world in which he lives.

Of the other major vices which are supposed to be characteristic of the college man, he is singularly free. But do not think for a moment that the horrid visage of vice rouses him to a fine frenzy of righteous indignation. Ferguson is not given to frenzies, nor does he indulge much in indignation, righteous or otherwise. Vices of the grosser sorts he regards as bad form and worse manners. These have found their place, too, in the catalogue of things not done. Ferguson's father may have been a model youth, but his rectitude was the result more of the fear of consequences and a very tepid conventional morality than a reasoned balancing of good and evil in the terms of practical daily life. These things do not seem to be to Ferguson "moral" questions in the sense that used to be emphasized, and woe to the man, preacher or layman, who tries to inflame Ferguson's mind with the presentation of them as instruments of a personal Devil. The truth of the matter is that Ferguson is not "good." He does not care to be. But he has tucked away in his bean the elements of a practical philosophy of life vastly more durable, and of infinitely greater tensile strength, than the somewhat flabby "morality" of his father's gener-

ation. He does many, many things that cause the judicious to grieve, but the judicious like to grieve and Ferguson just now is a favorite object of solicitude. When he comes to the throne many things may happen at his court that would not have happened in the early 'nineties, but when it becomes necessary to do so he will clean house thoroughly and effectively. He will do it with a cool head and practiced hand, but without averted face, and with no display of moral indignation. His administration will be clean.

Ferguson's religion is a much more private and personal thing than his father's. For that reason it is harder to get at and more difficult to describe. It governs his life much more than he suspects and provides him with just what he needs during a very brief and bewildering period. The men who are active in religious work he regards as no better and no worse than anyone else. Their activity alone wins them no special consideration, but on the other hand it does not place them in a class alone. Ferguson's father used to call them "gospel sharks" and they were held in more or less contempt by youths who joined their associations and dabbled in their undertakings while they sneered at them behind their backs. Ferguson may or may not share their labors, but he no longer sneers at them and, if they "make good," they are elected to his clubs and receive college honors. This change is well to ponder on. It is more significant than it seems. Ferguson will never be as "religious" as his father in the class of 'ninety, but he is quite as likely to inherit the Kingdom of Heaven.



Of the lesser amenities of life, Ferguson is a past master. His manners can be perfect, so perfect that the wonder is where he acquired them. As a host he is delightful, as a guest considerate and easy. For social conventionalities he cares very little, but he seems to know instinctively what to do and not to do.

In qualities of heart he is supreme. The warmth of youth tempered with shrewdness, the quick impulsive thing done with feeling and with grace. He rarely blunders and never "slops over." His court will be gracious.

It has been said that Ferguson lives by code. Never did mortal do so more thoroughly. Of all the monuments of civil life, none can equal in architectural intricacy Ferguson's code. It has been built piece by piece to meet the requirements of the moment. Devoted as he is to it, he will scrap the whole thing today and replace it with another tomorrow if occasion demands. But it serves his need and, with all the somewhat grotesque detail that seems to mar its outline, it is built on solid foundations. He errs in trying to apply it to every question and in trying to make it fit every emergency, but it is a pretty safe chart, and it is very doubtful if his elders could supply him with anything better. The last test of a man is whether or not he "makes good." Now "making good" with Ferguson is a complicated proceeding, but in the rough a man "makes good" when he measures up to the code, accepts it, and lives by it.

What has the code done for Ferguson? What are the provisions of the code? The limitations of time



and space make their enumeration impossible even if an outsider knew them. But there is evidence on every hand of what it has done. It has made the Honor System a reality. It has made possible a considerable degree of participation by the student in the details of college administration and discipline. It has created a sentiment for clean living. It has made fashionable and desirable some of the simple old-fashioned virtues—truthfulness, kindness, fellowship, and helpfulness. It has laid the heavy hand of student authority on many silly and unwise practices. It has given his little world a life well ordered, reasonably self-controlled, considerate of others, and in essentials healthy and normal. What more can a man-made code do?

And so Ferguson lives. Four years is a very short time and Ferguson has to take many short cuts; he has to cut a good deal of red tape and he must ignore much that might well be considered important if he is to do half what he wants to do, or what is expected of him, before he graduates. Unfortunately, too much of his time is given to the practical details of his life, and too little to the work of the classroom and laboratory. He does not use his time wisely, but it may be that his father does not.

It has doubtless been observed that the mind of Middle Age is a bit dull, and has not caught the fine lights and shades in Ferguson. This may be so, but it has caught the masses and the general outlines of the picture. Ferguson's critics will not like the picture and of course much has been omitted. Perhaps his virtues have been over-emphasized and his faults ignored. For

faults there are in plenty. Ferguson is callow, but he is young, and Middle Age has long since given over the criticism of youth on that score. Time will remedy that. And Ferguson is not half so young and callow as Middle Age was at twenty. Ferguson is self-centered. He has to be. How can he help it? His life makes him so.

Ferguson is noisy and excited over his sports, dull and apathetic over his work. It occurs to Middle Age that he was, too. Ferguson is "intellectually indifferent." Possibly, but the fact remains that in 'ninety students joined debating clubs simply to "join" and left the dry shells of the organizations to be carried on the backs of a few devoted souls. "Grinds" they were called, a little higher in the social scale than the "gospel sharks," but not much. Now, while debating is not a major sport, it is a recognized student activity and preëminence in it brings a sure reward. Ferguson is not as intellectually indifferent as he sometimes appears to be. Another and more serious charge is that Ferguson's code only works one way. He insists on its recognition only when it is to his advantage. There is some truth in this. Ferguson at present is compelled to attend chapel and church services. He does not like it. So he acts badly. He has adopted an attitude which he may think is dignified non-resistance. It may be non-resistance, but it certainly is not dignified. He slouches into chapel, and sprawls, and yawns, and reads newspapers under the noses of distinguished gentlemen who have come to talk to him for the everlasting good of his soul. It is one of a very few instances where the code does

not work, and where Ferguson refuses to play the game. After witnessing this surprising exhibition it was something of a shock to Middle Age to hear Ferguson ask grace before his Sunday dinner, in the presence of forty of his fellow students, with a simplicity and dignity and lack of unctuousness that was in striking contrast to some of the visiting clergy of the 'nineties.

Yes, all the things that his critics say are more or less true. But none of them have put their finger on the real trouble. The real reason why Ferguson is a problem, both to himself and to his instructors, is that with all his shrewdness Ferguson has not a glimmering idea as to the real reason why he is where he is. 'Ninety cannot tell 1924 why he has come to college, because he has come for entirely different things, impelled by utterly different causes than those which sent 'Ninety. The college should tell him: sometimes it does and sometimes it does not.

As Middle Age looked over the plant, saw the machinery working, examined the raw material, and handled the finished product of this strange and unfamiliar factory, he could not resist the conviction that with all its perfections, with all the evident care and skill exercised in the management, and with its wise choice of workmen, there was one great need. This need is recognized in the industrial world now as never before, and that need is a good "contact man"—some one who can interpret the college to Ferguson and Ferguson to the college. He must be a rare man, but he can be found. He must make good, and if he does make good many of Ferguson's troubles will vanish,

production will be speeded up, strikes will be averted, and the finished product vastly improved.

In the meantime, O elder Ferguson, a health to you! The four years will be soon over. Stand it a little longer and, in supreme confidence that the investment is a good one and extra dividends certain, respond manfully to the oft-repeated, royal command—"Charge Ferguson!"

## THE WEALTHY GERMAN TOURIST<sup>1</sup>

A writer in *The Manchester Guardian* puts very clearly the facts about the poverty in Germany and the luxurious living of the German tourists in Italy and Switzerland. The complaint of English visitors about the German tourists has recently been frequent and severe; they live in the best hotels and spend money freely, and, in the opinion of those who see them and those who hear about them, show no signs of concern for the masses of the needy and distressed at home. These individuals are, in fact, only a small proportion of the German people who have made money out of the depreciated exchange or by common profiteering and are now having a "good time" in disregard of the suffering at home. There is a class of this kind in every country, and it justly gives offense to those who resent its ostentation and callous selfishness. It is a class that no Government can "get at" with complete success, for however severe taxation upon the rich may be, there

<sup>1</sup> From *The Manchester Guardian Weekly*, May 9, 1925. Used by permission of the publishers.

is always a section who, with ample means to spare for private benevolence, remain luxurious and self-centered. What we must not do is to allow a just indignation against such offenders to obscure the suffering of the middle, the professional, and the working classes in Germany, of which there is the most conclusive evidence. If the springs of benevolence were to be dried up by the sight of the hardness and indifference of a few rich, it would be an ill day for the needy and desperate in our own country as elsewhere.

### THE MIND OF MAIN STREET<sup>1</sup>

BY GLENN FRANK

During the war, politicians, editors, and publishers assumed that Main Street was peopled with hungry minds and crusading hearts. In the speeches of the politicians, in the contents of the magazines, and in the lists of published books it was assumed that the horizons of our interests had been pushed out. It was everywhere assumed that the crust of custom had been broken, that the tyranny of tradition was weakening, and that we were, as a people, eager to face fresh problems with fresh minds.

Then came the reaction. The "white passion of statecraft" that marked our war-time diplomacy was succeeded by a swaggering cynicism that would turn the United States into a sheltered Shylock of the nations, concerned primarily with its pound of sovereignty. The

<sup>1</sup> From *An American Looks at His World*, by Glenn Frank. Used by permission of the publishers, the University of Delaware Press.



war had been for us one of those spacious hours in history in which even the smallest minds seem to take on something of the creativeness and bigness that characterize the time. Men who had before read little in their newspapers save the sporting news began poring over the dispatches and devouring long articles on foreign affairs. Men of prosaic day-book and ledger minds began studying the human problems of industry. As I have just said, all this was reflected in our newspapers, our magazines, and our book lists. But when the Wilson administration was overwhelmingly repudiated, a strange thing happened. Many politicians, many editors, and many publishers interpreted the verdict as proof that the mind of the nation had changed over night, that the inhabitants of Main Street had lost all interest in foreign affairs, had suddenly become indifferent to the consideration of the human problems of business and industry, that the intellectual ferment of war-time had become stagnation, and that the boundaries of our interests could be drawn by the three words, law and order and prosperity.

I have had a good deal to say at one time and another about the moral slump into which we have fallen since the war, so much, in fact, that I might be accused of sharing the judgment that the intellectual ferment of war-time has become stagnation. I do not. There has been a diminution of interest, of course, in the argumentative and opinionated discussion of the Versailles treaty. We have lost something of our early thrill over preachments on open diplomacy and self-determination. We realize that the industrial millennium



will not be ushered in by the simple installment of shop councils. We are, perhaps, a little more skeptical of easy catch-words. But, in my judgment, there has never been a keener mental hunger on Main Street than there is today.

I believe that the politician who interprets the post-war elections as anything more than a rather blind reaction against the inconvenience, high-living costs, and general unsettlement of the after-war period is riding to a fall, that the politician who would rather sin on the side of national selfishness than on the side of international service betrays America. I believe that the editor or publisher who assumes that the national mind is tired, that it may be tickled, but must not be informed or stimulated, has lost touch with his time. It may well be that in fiction we are due for a return of interest to romance. The hour is so crowded with problems and conditions that gravely tax our thought and sympathy—problems of foreign affairs, problems of national politics, problems of business and industry, problems of the disheartening cost and complexity of modern life—that we may well ask our novelists and short-story writers to “take us out of ourselves” when we give them an hour or an evening. But as a people we know that the pre-war world has tumbled about our ears, that there is no road to “normalcy,” if by “normalcy” is meant a return to old conditions and old standards. And we are hungry for authentic information and intellectual leadership. There is not a Main Street in the United States on which may not be found a healthy number of

men and women who will eagerly respond to such information and such leadership.

I am not merely romancing from the cloistered seclusion of a library or the isolation of a New York editorial office. I am, rather, reporting from the field. During the last ten years I have spent a considerable part of every year on lecture platforms that have run the gamut from the crowded halls of country cross-roads to assemblies of satisfied respectability in metropolitan clubs, and I speak conservatively when I say that never during the last ten years has the average audience displayed the scant patience with platitudes or oratorical tricks that is displayed today; never has there been more manifest evidence of mental hunger for authentic information and interpretation.

Why, then, all this talk of a moral slump from the intellectual expansion and sense of world responsibility of war-time? Is it consistent to talk with equal emphasis of the moral slump of America and of the mental hunger of Main Street? The distinction is, I think, that there is a moral slump of leadership side by side with a mental hunger of the people. How can this be, when leaders spring from the people? I shall not attempt to explain it; I simply record what I am convinced is a fact.

It will be interesting during the next few years to watch the fortunes of politicians, editors, and publishers in the light of this contention. I venture to predict that politicians who face fundamentals and editors and publishers who offer solid facts and sound interpreta-

tion will win the support of Main Street and Wall Street alike.

### THE IRON MAN<sup>1</sup>

BY ARTHUR POUND

#### I

A year ago I sat in a meeting of schoolmen and leading citizens who were wrestling with plans for a new high school and technical college. The leading citizens were manufacturers of motor-cars, because our town's reason for existence is the production of such cars, of which we can be relied upon to deliver upward of one hundred thousand a year, when the public buys them fast enough to clear the loading-docks. Our leading citizens, consequently, are leaders in their industry as well. For downright public spirit, no more satisfactory group of employers can be found anywhere. They took it for granted that our new high school and technical college was to be keyed to utility. They wanted practical education, or, as one phrased it, "education for life." As their program unfolded, it seemed that their goal was rather education for production. They may have seen new light since the wheels slowed down, but neither then, nor later, did the schoolmen offer any protest.

As an outsider, a member of neither group, I sat there, dazed, silent, a little dashed and fearful, as one amid new ruins. I knew there was something wrong with the program of these manufacturers; but what

<sup>1</sup> From *The Atlantic Monthly*, October, 1921. Used by permission.

it was I could not say. Now I know, because I have been studying the reactions of automatic machinery upon social relationships.

There is no better place for such a study than this town of ours. It exists for, and accepts the dictation of, industry highly automatized. In brisk times more than twenty thousand men and women work for three corporations, whose plants are full of automatic machinery. When these marvelous tools are busy, the town is prosperous, gains population, spends lavishly, yet saves much withal; when the tools are stilled, the town loses population, develops poverty, and lives on its savings.

In 1900 this was a quiet little manufacturing city of 13,000. In 1904 it produced its first motor-car, and growth from this time was rapid and sustained, draining away the surplus labor of near-by farms and villages. The 1920 census showed 38,550. In the next ten years, the city achieved a population of nearly 100,000, acquiring, among other interesting phenomena, a Little Poland, a Little Hungary, a Little Serbia, other immigrant colonies, and a Cosmopolitan Club financed by the Chamber of Commerce. We built a Polish church and school, two Russian churches, a Czech church, and presently we shall have a Jewish synagogue. During the war we imported camps of negroes direct from the Black Belt. All these non-natives, about 75,000 in the twenty years, came either to tend automatic machines, to supply the economic and domestic wants of the operatives, or to coöperate in a scheme of production in which the automatic tool was the decisive factor.

Of course, this growth induced the usual and to-be-expected rise in rents and land-values. We built houses as fast as we could find the money; but in spite of enormous profits to constructors and investors, we could not provide housing fast enough to satisfy the industrial leaders. In 1919-20 the corporation controlling our largest two plants built thousands of homes. As a strike ensued, the builders fell back upon the principle which had profited them in automobile manufacture, substituting for skilled labor machinery and unskilled labor.

In 1920, production on automatic machines here and elsewhere having outrun consumption, the wheels slowed down to a fraction of their former speed. Immediately our town began to lose population; thus proving that, with cities as with plants, quick growth means weak roots. Coincidentally rural districts began to gain. While we were losing 15,000 out of our 100,000, a village eighteen miles away added twenty per cent to its 1920 census of 400. Money brought these people into town, and, jobs failing, lack of money took them out again into the fields, woods, and villages. Michigan woods were full, last winter, of men who, a year ago, were tending automatic machines. What back-to-the-land propaganda failed to do in twenty years, economic necessity accomplished in six months.

Of all the states, Michigan shows the greatest percentage of urban growth from 1910 to 1920; also the greatest growth in the use of automatic tools. This is because ours is the automobile state. The automobile, as an economic want, burst into being rather than grew.



It was a new means of transportation, not the development of an older means. Its makers faced the markets with open minds and almost empty hands. They had no well-established shop-practice to consider, little or no machinery to junk. Their margins were large enough to insure that whatever increased production would return profits. Moreover, the nature of the business required large outputs of identical parts, accurately machined, standardized and interchangeable. Hence the automobile industry is today the most highly automatized. Hence the reactions of automatic machinery upon human nature and the social order may be observed here in all their vigor.

Those machines which tend to replace the worker or reduce his function to a minimum are described as automatic. They are so designed that the worker need not know the vital steps which the mechanism takes in producing the desired result. The dividing line between these tools and those that merely lengthen or strengthen the arm of man is nowhere definite and precise, but examples will help to point the distinction.

With the power wool-clipper, as with the sheep-shears, the mind of the operator must work with his muscle, to extract from use the increased efficiency of the tool. But with an automatic tool, the attendant is required only to feed the machine and relieve it of its produce from time to time. There are a good many semi-automatic machines; but the tendency is toward their complete automatization. Each year sees semi-automatic machines develop toward automatic perfection; each month sees the scope for skill in industry



lessened, particularly in those basic industries which concentrate large numbers of workers in given centers, and so exercise a determining influence upon social relations.

Skill, of course, is still vital; but the need for skill has passed upward. Machine-design, shop-organization, routing of materials, and distribution of produce—these require a concentration of skill and technical knowledge far beyond the similar requirements of non-automatic industry. The rank and file need use only a fraction of their native intelligence and manual dexterity, while the skill-requirement, which formerly spread more or less over the whole shop, is distilled into a relatively small group of engineers and executives.

This shift of vital function from the man to the machine is the key to many problems. It affects all departments of life. We have seen how it broke down the barrier of apprenticeship which had sealed factories more or less against rural labor, and brought raw farm-boys into town, leveling farm and factory wages, lifting food prices. We have seen the power of the Iron Man to pull the negro north and the peasants of Europe west. And we have seen something, but not all as yet, of his influence in shifting women from the home to the mill. The clear, unmistakable tendency of automatic machinery is to level labor, as to both supply and wage.

Certain collateral effects are equally impressive. Many automatic machines can be operated as well by a child of twelve as by his parents. In fact, the tender of automatic machines reaches his or her highest economic power early in life, when nerves are steadiest.

The strain involved in nursing automatic machinery is a repetition-strain, complicated by clatter. The operative does the same thing over and over, amid rhythmic sounds, in an atmosphere frequently stale with oil or dust. Youth stands this better than age, because youth reacts more quickly. Whereas, in the old days, a man used to come more slowly into earning power, reach his highest pay at thirty-odd, and continue fully competent until age began to slow him down at sixty-odd, his son leaps into high pay as a hobbledehoy, reaches his economic apogee short of twenty-five, and from thirty-five to forty-five slides swiftly downhill. He is a better earner at twenty than his father was; but the chances are that he will be a poorer provider at fifty.

I prefer not to be too dogmatic on this point. Automatic machinery is so new, having been in common use about twenty years and still being in its infancy, that present deductions on economic life-expectancy are founded upon too few instances to be altogether conclusive. Moreover, the swift decline of earning power in middle life may be partly due to causes only indirectly related to industry—poor housing, youthful excesses, and the like. However, present indications point to the correctness of the cycle outlined above.

Now the difficulties of the problem presented to educators by automatic machinery begin to emerge. The majority of youths, male and female, no longer need to be taught how to earn their living. Three days after the law that sets limits on child-labor leaves them free to work at the machines, they will be earning big money—practically as much as they ever will earn. There is

little to learn; the mills can teach that better and cheaper than the schools. The labor turn-over cost per man ranges from \$25 to \$100; this includes the pay of the novice and his instructor, investment, depreciation, and overhead. Since it includes the non-automatic and semi-automatic processes, the cost of training men to serve the automatics must be considerably less than the average, and will decrease as automatization becomes more intense. The instruction period on automatics varies from half a day to a week; it is estimated that seventy per cent of the workers in an automatized plant can be brought to efficient production in three days or less. The schools can never match this record; in addition, the cost to the schools of the equipment for the effort is prohibitive.

The pockets of these children are full of money at an age when their fathers earned less than a living wage as apprentices. They are economically independent of home and social control. They have the eternal belief of youth that the preceding generation is fossilized, and the buying power to act upon their belief. They are foot-loose to go wherever automatic machines are turning. They can buy their pleasures, and they do. They can afford to flout age and authority; they do. Their very active minds have no background, and feel the need of none. They have no conception of the cost of civilization; no standard of reference by which to judge social and political questions. They have not even lived long enough to learn the simple truth that common sense and wisdom spring from the same root. With far greater need for early thrift than their elders, because

their effective economic life may be shorter, they spurn the homely virtue of economy. They buy pleasures, buy companions, buy glad raiment; they try—desperately—to buy happiness. And fail. Yet they are splendid raw material for citizens. Let a great cause kindle them, and they rise to it like knights and ladies—*noblesse oblige*. They met every war-need more than half-way; fought and fell; sacrificed and saved—during the emergency. Their faults are those of youth plus affluence.

Here is the explanation of our youthful delinquency. Our “bad men” of this winter are mostly minors. “My court,” said a Detroit judge, “is the scene of a procession of beardless boys.” They acquire appetites—expensive appetites; pleasure leads into bad company. A prank gone wrong, an unfortunate slip, a month without a job and nothing laid by—and we have the beginning of what we call the crime wave.

## II

Much as this situation complicates the educational problem, the school-system somehow must be adapted to it. Somehow these children must be brought up to a mental and moral level approximating the economic level upon which they set foot immediately after leaving school. This is a grim task. In the public schools, certain things must be taught before the age of sixteen, which now are taught only in college, and to which many college students appear to be immune. The proposal itself would be revolutionary if it did not arise

from a new set of industrial conditions, to which society is accommodating itself clumsily, but, in the main, peaceably. As such, the change, though startling, is clearly evolutionary—and inevitable.

What are the positive educational requirements of the machine age? To clear the ground, let us eliminate the non-essentials. The child who is going to tend an automatic machine does not need, in any economic sense, to read more than a shop-poster or direction-sheet. If he can sign his name to a pay check, that is enough. If he is willing to trust the shop to figure out his pay, he need not know his numbers. For the time he stands beside the machine, his earning capacity is not increased by anything he knows. Knowledge may be useful in getting him away from the machine; but that escape is going to be more difficult as automatization proceeds toward its logical conclusion. Such knowledge as the operative comes by in school possesses for him only a cultural value. It does not help him in the least to earn his living; but it helps him immensely to spend his leisure.

For these children—these prosperous, precocious children—possess leisure, and the means to make the worst of it. They work, most of them at least, no more than eight hours a day. Presently it may be seven, even six. As production becomes more and more automatic, the wants of men can be supplied with less and less labor. Consumption, of course, may expand enormously; yet the demand for goods remains in stiff competition with the universal demand for leisure. "I've got enough; let's go fishing," was a state of mind so



common in 1919 that it disturbed factory schedules, roused employers, and set tongues wagging about labor-profiteering.

Employers may fight the tendency toward the shorter working day, but theirs is a losing fight. Of late, in our town, we have gone along producing on a five-hour schedule all of our kind of automobiles which the restricted market would absorb. In so doing, we have discovered that with picked men, heightened morale, and with a closer synchronizing of all the elements involved, production per man can be greatly increased. If the present highly effective organizations are slowly enlarged, thus preserving their efficiency, it is difficult to see how the market, under normal conditions, can absorb more than eight hours' produce from day to day.

If this seems to contradict previous observations on the elimination of the personal element through machine use, please note that the improvement is due largely, if not altogether, to the work done by the engineers and executives in more efficiently routing materials to the machines. Under boom conditions, the stream of supply was often interrupted, thus throwing the machines out of production. This has been largely corrected; also, in the meantime, the machines have been tuned up, and new ones added in some cases. The attendant of the automatic machine remains just where he was; but the machine has the chance to do more and better work. Of course, even in a highly automatized plant, there remain a good many jobs that require either no machinery or semi-automatic machines; and



in such cases the recent weeding out of the ineffectives does produce beneficial results. If the market will not absorb the products of the longer working day, on the present more efficient per-man per-hour basis, then it seems apparent that, viewing the country as a whole, industry will have to adjust itself to eight hours or fewer, probably fewer. The nation's supply of automatic tools is not going to be decreased simply to lengthen the working day; on the contrary, competition continually forces more and more of such tools into operation.

A shorter working day manifestly means greater leisure for the masses. Now it is everlastingly true that the bulk of human mischief is done in spare time. There is precious little chance for original sin, or any other kind of sin, to work itself out under the strict regimen of a modern factory. While human beings are at work, they are, perforce, reasonably decent: the employer sees to it that the time he buys is not wasted; but no one exercises an equal degree of control and supervision over a man's unbought time—his leisure—unless it is the man himself.

In a town dominated by automatic machinery, therefore, the educational problem is to train youth for the right use of leisure. Why waste time teaching city children how to work, when their chief need is to know how to live?

Precisely here is the point of my argument. Education for leisure, under the conditions of automatic production, is education for life. The attendant of automatic tools does not live while he is on the job; he

exists, against the time when he can begin to live, which is when he leaves the shop. His task does not call for a fraction of his full powers as a sentient being, or monopolize his interest. If he could buy the same amount of well-financed leisure as easily in any other way, he would shift jobs tomorrow. It is impossible for him to grow mentally through his work. So he comes to his post as a slave to the galley, and leaves it with the gladness of a convict escaping prison. Psychologists say that a large part of industrial arrest is due to the inhibition which automatic tools place upon the expression of personality through labor. Be that as it may, the fact is that the hours given to tending automatic machines are given to buy leisure; and in that leisure the operative lives. He lives in his sports, at the movies, at the prize-fights, at the blind pig, as well as at the theater, the lecture, the library, the park, and on the front porch of his inamorata.

In general, it has ever been true that leisure is the cream of life. We have tried desperately to build up an immunity to leisure, with our dull gospel of work for work's sake. There is a glory in creative work; but even that becomes pain and weariness if we are kept too long at it. All labor produces, sooner or later, weariness and pain, nature's signal to quit and go a-playing. When does that most stolid of men, the peasant, live most fully—when he plods the endless furrow, or when, at evening, he sings his songs, dances, prays, and courts his maiden? When did the skilled mechanic of another day feel his manhood soar highest above clod and worm—when he was chasing a screw

with a cold chisel, or when he was taking the air in his garden, or, perchance, hobnobbing with his mates in the corner saloon? Is the tireless business man better company when he is chasing a golf-ball, or when he is chasing a profit? Is the banker best satisfied with himself when he is figuring interest, or when he is hip-deep in the stream, figuring trout? I think that the men of the best sort reach their farthest north in life, not in the hours they pay for life, but in the hours they spend in living. Certain am I that none but an imbecile could find delight in sharing the daily toil of the urban masses, so mechanized has it become. Consequently, education for leisure is precisely education for life. And education for life comes squarely down to education for culture.

To apply the early Victorian ideal of education to a machine age, to call upon Matthew Arnold to prescribe for a flurried and worried democracy, may seem absurd. But that is what the situation needs; and the necessary is never absurd. That cultural ideal was to fit for leisure those who had leisure—a small minority. With certain reservations in the interests of truth, it may be said to have produced a few first-rate minds and a very considerable number of gentlemen and gentlewomen. Now, because leisure has broadened out to include the majority, we must cultivate gentlemen and gentlewomen *en masse*. What was once a privilege for an arrogant aristocracy has become a necessity for an arrogant democracy. Unless our American gentlemen and gentlewomen appear in due time and in sufficient numbers, civilization will be wrecked by machine-made bar-

barians, unable—though their machines compass the globe—to replace what they have destroyed.

### III

What is the first requirement for the right use of leisure? Self-restraint. Leisure is liberty from an exacting, definite control—that of the boss. In leisure a man is subject only to the state. When the worker leaves the shop, he passes from a positive control to a negative control. Inside, he is required to do certain things; failure to do them results in sure discovery. Outside, he is required not to do certain things, although, if he does them, no penalty may follow. Thus we see that it is immensely more difficult to train human beings for life and leisure than for toil, and that, in America, only odd and unusual persons get very much out of leisure. About all that a retired business man feels equal to is golf and musical comedy. The workers offer more encouragement—Brashear and Henry George showed what laboring men could do in spare time.

Need for self-restraint increases in direct proportion to affluence. I am sure that eight dollars a day at eighteen—and some of our lads earn much more than that—would have corrupted me beyond repair. The wonder is, not that some of these highly paid striplings go wrong, but that all do not do so, considering the opportunity offered them by their cynical and predacious predecessors. More even than wild oats, I am sure that eight dollars a day at eighteen would have insulated

me against right relationship with the world of ideas and ideals, past, present, and future, by blasting nascent inquiry and speculation. The establishing of this relationship in youth is, I take it, the end of all true and worth-while education, involving, as it does, the subjugating of the assertive, unbaked Ego to the social well-being, as manifested in the legal, moral, and ethical codes prevalent in one's environment and enforced, more or less, by the power with which common consent invests political institutions. Respect for authority, even that qualified assent involved in the pragmatic view of established institutions, has extreme difficulty in getting a foothold in a generation whose youth is economically self-sufficient.

It follows that knowledge, as the chief restraining influence in the youthful mind, is the substitute that education must establish in place of the set of controls which formerly resulted from the young man's poverty or fear of poverty. Remembering that the rising generation reaches its highest economic utility early in life, and that it soon, relatively speaking, reaches the economic status of old age, I think we must agree that, unless youth is taught thrift, pauperism will lengthen and strengthen from this point in time. A grievous outlook, to be forestalled at any cost.

There is need, therefore, to drill thrift into children; let the experts busy themselves on methods. The whole field of economics must be opened earlier and charted more simply. Is it not odd, in a nation that bows down to economic fact, to find the teaching of that economic



theory almost wholly a college monopoly? It ought to be possible to begin the teaching of economics in the kindergarten, and to bring the pupil along so that, before he becomes a part of the economic machine which supplies human wants, he may understand at least its delicate nature. Suppose a child of five were set moving a given number of blocks from this space to that by hand—an hour's work. Then suppose the child were given a basket to ease the job—time, ten minutes. Then suppose, further, that an intelligent teacher explained that the basket was capital, the result of previous thrift, of labor in past time. That lesson would stick. Somehow to get this, and other fundamentals, into the mind when it is plastic, is the supreme educational task of the future.

So with the idea of law. My children know, among other surprising things, the chief products of every state in the Union; but they have no conception of the legal system which enforces equity and fair play in the exchange of those products. It seems the simplest thing in the world to teach them that laws exist to protect the weak from the strong, the just from the unjust, the person of good intent from the swindler. Once they had mastered that idea, they might see the policeman as a friend rather than as an enemy, and our economic-judicial system as something to be protected instead of destroyed. A generation so reared might insist upon the law doing its primal duty; but it would be evolutionary, not revolutionary, in its demands.

But self-restraint is not, of course, all that a man



needs in order to make something out of leisure. A man may be ever so self-restrained, and yet be desperately bored at the prospect of spending an hour in his own company. Self-restraint is merely the brake upon the ego-motor; it will keep the individual from running amok in society, but it will not start anything. Its virtue is negative. What the ego-motor needs in leisure is fuel, something upon which it can travel, progress, journey into new realms of thought. The best fuel for the purpose is compounded of interest in the present, understanding of the past, and sympathy with the future. History, literature, science, art, music—all these give to life meaning, and to leisure, inspiration; a reasonable concern in all that man has done, is doing, or is about to do upon this planet; with such equipment any fool could use leisure aright. To sow that seed is the first duty of educators, now as always, now more than ever.

So much for the background. But backgrounds are always hazy; let us concentrate. Since work is coming to be no longer a primary interest for the child of the masses in civilized lands, it is incumbent upon us to provide, in so far as they can be provided, other primary interests through which the individual can justify his existence; interests which, rising out of and sustained by his background, shall flourish like the green bay tree all the days of his life. Every man, whether he works a turret-lathe or a comptometer, needs a hobby to busy himself with in this age of growing leisure. We hear less of vocational training than we did—for good rea-

son, since its utility is passing. Presently we shall hear more of avocational training, which shall give every youth destined for the mill or office a hobby for the center of his garden of leisure.

In a machine age the applied sciences are paramount. Let them remain so. There are important posts on the peaks of industry which must be filled. Let us see to it that every mind fit to join the directorate of industry gets its educational opportunity. Machinery is undeniably one of the prime intellectual interests of the American masses; in leisure an informed generation would continue inventing, perhaps invent faster than ever. Therefore let us give youth all it can stomach of the sciences, deepened and broadened to the uttermost. But by no means should we submit to the specialist's obsession, that, with the key to universal knowledge in his hand, he travels down a walled alley, shut off from the humanities, from philosophy, from religion, from life.

I am not competent to provide the synthesis for this analysis, to describe the educational reforms which are necessary, and which I am sure are on the way. That is a task for many and mature minds. But certain key-points emerge out of the haze. We must, I think, insist upon ten years' schooling for every child as an irreducible minimum, before plunging into the whirl of automatic production. There should be four school-terms instead of two, with a brief holiday between; the long summer vacation is an anachronism in a factory town. So also is the Saturday holiday—six days a week in school henceforth. There is so much to be taught, and there are so few years to teach it in, that

youth must hurry. At the same time, school should be so much more interesting that the charge of drudgery could not hold. Then, too, there must be more teachers and smaller classes; better equipment; more money spent all round. Finally, there should be a complete system of continuation schools, wherein those who desire to use their labor-bought leisure by securing further instruction could be accommodated on their own time. All graduates presumably will have been so far inoculated with the intellectual virus that they will go on improving their minds at leisure, *to some extent*, thus demonstrating on a wide scale that education is not a matter of youth, but of life. With such a start the many will read, discuss, and enjoy the noblest works of man. And some among them, have no fear, will create as well as re-create.

But the program, after all, may be left safely to the specialists, now that the problem is stated for their attention. They may have been a bit tardy in seeing how the Iron Man is frustrating their efforts, and why; but that is because they have been concentrating upon an even more wonderful mechanism—the human mind. Let them quarrel, as no doubt they will, over the details of the program; but they can be trusted to accept the statement—once they square the facts by the rule of reason—that the welfare of our people and the preservation of our institutions depend upon our educating youth to use reasonably and gloriously the growing leisure which the common use of automatic machinery has in store for humanity.

# THE INSECTS ARE WINNING<sup>1</sup>

A REPORT OF THE THOUSAND-YEAR WAR

BY WILLIAM ATHERTON DU PUY

Back in 1918 I heard a little girl, nine years old, ask her father this question: "What would the world be like without a war?"

It was a good deal of a shock to realize that here was a thinking person to whom war was normal. The great conflict had been going on ever since she could remember.

Now, if such a war should proceed without interruption through a generation, three generations, ten generations, thirty generations—would it become so commonplace a state, so generally accepted as a matter of course that all of us would become unconscious of it, would stop thinking of it as war? I maintain that it might, that it would, that this thing has actually come to pass. There is, in fact, a war going on now—a thousand-year war, reported by the newspapers, financed out of tax money, as vital as the recent world conflict—of which the average citizen is not conscious.

I refer to the war between man and the insects.

The issue is vital: no less than the life or death of the human race. If man wins he will remain the dominant species on this earth. If he loses he will be wiped out by this, his most ambitious racial enemy.

This enemy, this horde of insects that inhabits the

<sup>1</sup> From *Harper's Magazine*, March, 1925. Used by permission of the author.

earth, outnumbers all other kinds of animal life combined, has held its place for fifty million changing years, is beyond doubt steadily increasing its power. It is finding its opportunity in the peculiar conditions developing in the world because of the interference of man himself.

Is there an insect age upon the way just as there has been an age of reptiles, a glacial age, an age of man? Is the surge toward dominance of this seemingly suppressed class of the animal kingdom—the hexapoda, the six-legged animals—to last, or is it but a momentary flash in the pan? There is no question but that the present greatest menace to man's dominance is the increasing strength of the insects. If that strength continues to increase as it has for the past generation, a time will come when, his food supplies gone, man will disappear and the six-legged group will remain supreme.

The military intelligence divisions of the General Staffs of this war are composed of the students of insects, the Federal and State Bureaus of Entomology, the scientific institutions. They agree that the insects are gaining on man, that they threaten his very existence.

Here are evidences of the progress of the war between man and the insects:

When those of us who are now middle aged were boys, we picked our peaches and apples from trees in our own back yards. Our sons and daughters now buy them at the grocery store. They do this because the back-yard orchards no longer exist; they cannot exist—the insects will not allow them to do so. They have



won a battle in the thousand-year war. The result is a blow to man in the permanent curtailment of his food supply.

Here is another incident in the long war—one well known in itself, but rarely considered in its relation to the age-long conflict of which it is a part. The boll weevil, as everybody knows, came out of the mountains of Mexico, pushed across the Rio Grande, rolled on (fifty miles a year) blighting the cotton as it went, defying all the power of the strongest nation in the world to stop it until it had covered the cotton area. It cost America her cotton dominance of the world. It cut down man's supply of a useful material. Eventually, it seems, it must spread its blight around this world. Its invasions are a part of the thousand-year war.

Some readers will remember the coming to American orange groves, back in the 'nineties, of the cottony cushion scale. Out of Australia it came, a tiny thing which the eye could hardly see, stealing in on imported orange trees. In a few years all the orange trees of California were covered with it—individuals piled together in masses. Every individual in this army drilled itself a hole in the bark of the orange tree and began drinking sap. When enough of them got to drinking there was no sap left to nourish the tree and it died.

Man here used strategy. He sent emissaries to Australia, where the cottony cushion scale was native, to find out what kept it from killing the orange trees over there, to recruit mercenaries. They found that Australia had a peculiar variety of ladybird beetle which



looked something like a potato bug and ate nothing but this scale. In Australia these kept the scale down, maintained the balance of nature. Give these ladybirds a happy home and plenty of food and they would multiply at a most appalling rate. One mother of to-day might, in five months, have seventy million descendants. So the scientists brought over some of these beetles, got them started in the orchards, set insect to eating insect, and in a year the scale was gone. Man had won a battle, had saved a resource—his orange crop.

About a decade ago a nurseryman of Riverton, New Jersey, brought all the way from Japan some iris bulbs with earth around their roots. Though he did not know it, there was a great menace lurking in these few spadefuls of dirt, a menace in the form of an insect enemy—the Japanese beetle. A few stowaway beetles thus introduced bred large families, and the next season they started out in all directions from their nursery and traveled five miles. They there dug themselves in for the winter and the next year traveled five more miles. They have widened their circle five miles every year since. Their march goes on, cannot be stopped, is as inevitable as the rising of the sun.

These beetles, while grubs, eat off the grass roots two inches below the ground, so that the covering of a lawn or golf course may be rolled up like a blanket. In a single square yard of sod fifteen hundred of them have been counted. They develop into beetles which fly away into the surrounding orchards and cornfields and devour them. The State of New Jersey, the State of

Pennsylvania, and the Federal government have combined in attempts to throw a cordon around this marauder and stop him. The attempt has resulted in utter failure. The United States is suffering another successful insect invasion.

These are but isolated happenings in the thousand-year war. Witnessing one of them no more helps one to an understanding of the vast events which are slowly taking place than having seen the sinking of the *Lusitania* would have explained Marshal Foch's mission in the great crisis.

To understand what is here going on one must get a grand-stand seat so that he can look down on this world game as on the plays of the baseball diamond. He must concentrate decades into single plays, centuries into innings. So may man and the insect be seen as they fight it out.

In the days before Christ when Carthage, sitting there on the north coast of Africa, was a city of magnificence, the grasshoppers used to be swept up from the desert by the winds, blown in myriads into the seas, and drowned. The waves would drift them onto the beach in barriers six feet deep and the stench of them would bring pestilences which cost hundreds of thousands of lives.

During the Middle Ages the flea brought the bubonic plague from its ancient nesting place among the black rats of the Himalayas and established it in Europe, where it persisted for centuries, killing half the people of a whole continent. The house fly (a purveyor of typhoid) and the mosquito (disseminator of malaria)

have caused the death of more men and women since time began than all the wars between humans. The early sanguinary conflicts between man and insects were sporadic—were like mediæval visits from marauders who came out of the mountains, or piratic fleets that fell upon unprotected towns and despoiled them. They were not like modern fighting, in which victory lies in exhausting the resources of the enemy. In its warfare with man the insect of today is applying a strategy the chief end of which is to leave its enemy without those supplies which will successfully sustain him.

There was a time not long ago when the balance of nature in this world was quite well established. Insects fed upon plants, birds fed upon insects, mammals upon birds. If the vegetation increased—insects had more abundant food, they increased in numbers and checked it. If the insects increased unduly—birds were well fed, bred bigger families, became numerous, ate up the surplus insects. If the birds became overpowerful—beasts of prey were better nourished, increased in numbers, and called a halt in the expansion. If any of these elements became less abundant, then those which fed upon them were not fed so well, decreased in number, and gave their antagonists a better chance. So did nature tend to maintain a balance.

During the last thousand years a new element has appeared, has become steadily more important, has tended always more strongly to upset this balance of nature. This new element is man, who has but recently become the dominant living thing on this earth—the animal which has learned to adopt methods and prac-

tices beyond nature and through them to interfere with the normal balances of old. Here are some of the things that man has done which have disarranged the normal checks and counter-checks of nature.

Six thousand years ago in Egypt, when man first began to supplement himself by grouping about him other elements in nature, he found in the Numidian forest a brindled wild cat with black soles to its feet, which lent itself to domestication as has no other cat in the world, and took readily to the idea of living in man's household. Similar cats in the Numidian forests may be captured to-day and brought almost overnight to domestication. Wild cats of Europe and America are different: though tamed, they return to the wild at the first opportunity. This Numidian cat found its way into every Egyptian family. When traders first began to thread the Mediterranean Sea they carried these pets to Athens, to Carthage, to Rome. There they multiplied and, with the passing generations, spread over all Europe, still maintaining almost in its purity this strain of the blackfooted beast from Egypt. Englishmen brought these cats to Massachusetts and Virginia. They increased in stupendous numbers, and to-day they blanket America. Millions of them live in American homes, but more millions have gone back to the wild and are scattered through its wastes. This Egyptian cat, once tamed, is to-day the most abundant representative of mammal wild life in America. Go into the woods anywhere after a snow and count the animal tracks, and more than half of them will be those of

cats. These cats, if caught, will be found to have the black soles of the Egyptian.

Cats feed largely on birds. When man came to America there was a balance between bird life and that of the animals which preyed upon it. Man introduced a new element, the Egyptian cat, which has become dominant. These cats, preying on bird life, have upset the balance. There are fewer birds in America than there should be. Birds are one of nature's checks on insect life, and that check has been greatly weakened. Insects may breed to-day with less restraint than they did before. The cat is their effective ally.

Sir Francis Drake, buccaneer of three hundred years ago, once took as a prize a Spanish ship loaded with spices from India. It is recorded that on that ship was a strange "black bugge" which the Spanish called *cucarache* which, strictly speaking, meant *wood louse*. This *cucarache* became the modern cockroach. It was a native of India, never until that time seen in Europe. These cockroaches, however, were sturdy fellows, given to living in dark and narrow places, and therefore happy in the holds of ships that plied the sea. Thus these argosies of commerce have served as a means of broadcasting the cockroach, and it is found in abundance wherever man dwells. His homes have provided suitable breeding and dwelling places for these children of the warm countries. New species, one in America and one in Australia, were found and distributed. So have world-girdling multitudes of them appeared where before there were none at all or but local tribes. This



increase in the range and numbers of the cockroach is typical of the man-influence in the insect world.

In 1889 a scientist in Medford, Massachusetts, was conducting experiments for the improvement of the breed of silkworms. Moths are the mothers of these spinners and he was attempting to develop a hardier moth, one with caterpillars that would browse on scrub oak or sassafras. To this end he brought over from Europe a specimen known as the gypsy moth because of its bronzed complexion. He caged this dusky adventurer with timid little mothers of silkworms, hoping they would mate. Along came a boisterous wind and blew over the coop. The gypsy moths flew away and merged themselves into the Massachusetts landscape.

This small incident launched a new campaign in the thousand-year war. The gypsy moths, which are quite harmless in their native Europe, multiplied in America to a prodigious extent. In a decade their caterpillars were so numerous that they were eating the foliage from a distressing proportion of the trees in Massachusetts. Not only this, but they were gradually extending their range over into Connecticut, up into New Hampshire, on into Maine. They were creating devastation—they were menacing the trees of one entire corner of the United States and threatening always the conquest of new areas. Again were individual states aroused to action. Again did the Federal government fling its resources into the field. Again was the scientific world called upon to furnish strategists in a great campaign. For thirty years the fight has gone on—the advantage



now on the one side and now on the other, with the outcome as yet undetermined.

Here again, however, it has been the intervention of man which has given the insects an opportunity to harm him, to attack in a new way.

The manner in which this thousand-year war may bring about unexpected situations is most surprising. Here, for instance, is an incident of felicitous comity between two friendly nations which, by the intrusion of an insect, has been turned into costly tragedy.

Theodore Roosevelt, while President, sent his Secretary of War on a world-girdling trip, the result of which was the establishment of certain international friendships. In the course of this trip Mrs. Taft was presented to the Empress of Japan. Later, when Mr. Taft became President, that sovereign, seeking to give evidence of an enduring friendship, sent to Mrs. Taft a group of flowering cherry trees, symbols of beauty from the Far East. Those cherry trees were planted along the tidal basin in Washington and their beauty in the springtime has become a matter of national renown and pride. Some years after the planting of these trees, however, an entomologist found in a peach tree near Washington a queer little moth, the like of which he had never seen before. Identification of the stranger was a matter of months, but in the end it was shown that he was a member of a moth race resident in the Orient. He was a peach moth. Coming in on these cherry trees, he has started another widening circle which as it grows blights all the peaches. Fluffy and fluttering in its frailty, this moth has thrown down the gauntlet to

America, has challenged her to fight for a great prize, a prize no other than her peach crop which spreads from ocean to ocean. It started a conflict that will continue for generations, and its result may be the loss to man of another important food resource.

These recurring battles between man and insects, as I have said, mostly find their origin in some act of man himself. The boll weevil, for example, which had existed for a million years in the hills of Mexico, was an insect of no importance, with a localized home, until an act of man gave it an unusual opportunity. Man took the cotton tree of the tropics—a plant which in its native state grows on, year after year, as does an apple tree. He brought it to the temperate zone, nursed it, converted it into an annual which died every year when the frost came, adapted it to cultivation in the fields, made it the basis of a crop of world importance. Many decades passed and eventually some few weevils of these Mexican mountain tribes were brought by man down to the Rio Grande and carried in cotton seed over into Texas where cotton fields spread out unendingly. The check upon the spread of the boll weevil in its native home had been the limited supply of cotton trees which offered it a breeding place. Here were prepared for it—through the agency of man—limitless pasture lands, inexhaustible food supplies, opportunity to increase beyond the dreams of fancy. The one check to its increase had been removed and the boll weevil—obeying its innate law—swept on irresistibly, defeated the forces of the United States in every battle until it had blanketed the South.

The back-yard orchard has disappeared because of the coming—again from the Orient, as in the case of the scale that attacked the orange groves, and again through the agency of man—of a tiny insect which, breeding in millions in your apple tree, has come to be known as the San José scale. San José scale has spread through the nation. It has spread in the face of all the resistance that science has been able to offer. The battle which has now lasted three decades has come to a deadlock. The invader admits that the orchardist may hold it in check by one device, and one only: if he sprays his trees with poison at the right moment, four or five times a year, so that San José scale may not feed upon them and his fruit may ripen. If he does not do this scientifically, periodically, the scale will thrive and the fruit crop will be spoiled. Practically, it works out that the fruit grower with great orchards, scientifically handled, may successfully fight the San José scale; but the individual with a small plot will not take the pains, cannot afford to take the pains necessary to save his fruit.

The gypsy moth invasion, like that of the boll weevil, did not yield quickly to treatment as did the cottony cushion scale. Every effort was made through the decades of fighting to find parasites that would check it, enemies that would prey upon it and devour it. Some such have been found. There is *Colosoma*, the tree-climbing beetle from Europe which feeds on caterpillars; and *Anastatus*, the tiny wasp that lays its eggs in the gypsy moth eggs; another wasp, a Japanese, that lays its eggs inside the caterpillar itself where it eats out its vitals;

and a tricky fly which lays its eggs on the leaves, where they are swallowed by the caterpillar and the young ones develop and bore from within. All of these have been introduced by the strategists and it looks as if they had at last got the better of the gypsy moth. The most effective enemies of insects have been found to be other insects.

What is to be the issue in the fight with the Japanese beetle and the peach moth is yet in the lap of the gods. What are to be the new issues in the long war only the future can tell. In any waste corner of the world insect menaces like the boll weevil or the Japanese beetle, or worse, may be lying dormant to be given their opportunity by some act of man which interferes with nature's adjustments.

An understanding of these problems of the insect menace is largely due to findings of the present generation. Before it there were a few outstanding entomologists, but their numbers were small and their interest largely theoretical. The grasshopper invasion of the Western wheat fields in the days of our fathers gave a tremendous impetus to applied entomology. Scientific men began to study the grasshopper, whence it came, how it might be fought. Individuals in the universities here and there began to specialize on a study of insects and their relations to human welfare. A generation ago so simple a thing as the fact that house flies bred in manure piles was unknown. A generation ago lumbermen did not know that a "red top" in the forest was a tree with its throat cut; that it was being girdled by a beetle beneath its bark which, if not fought, might

destroy the whole forest. A generation ago there were few people who knew that the insects were man's most ambitious rival for world supremacy, and that the logic of the situation was that in the end they would probably wipe him out.

The foremost world agency in the development of applied entomology has been the United States Department of Agriculture. Its Bureau of Entomology, with some four hundred scientific men employed—the largest agency of its kind in existence—has steadily led the world in this field. Dr. L. O. Howard, its chief, has spent forty-eight years in its development and has been an outstanding figure in organizing governmental opposition to insect attack.

These scientists are the staff officers, the intelligence corps of the thousand-year war. They are able to get perspective on its progress. They set the occasional victory which man has gained over against his more frequent defeats. They balance the ledger and find that man has lost many more fights than he has won. They measure the increase in the strength of the enemy through a generation or a century and find that it is appalling. They visualize the result if developments should continue as they have been for a hundred or a thousand years. The prospect for man, they hold, is not bright.

Strange antagonists are these two—*genus homo* and the insect—the graybeard and the youth of the animal kingdom. In coal beds that were laid down five million years ago are found the remains of cockroaches very much like those that forage in pantries of today—



wise enough to detect, with a single touch of an antenna, the presence of poison man has stirred into their favorite food. They have been so fit to survive that they have found no need of change. Beside them man is a mere stripling, an experimental design come into the world but yesterday—some thirty-five thousand years ago—a design which is constantly being changed, whose success or failure is yet to be demonstrated.

How contemptuous of the upstart must be this representative of an established order, of a family that has held its place through the ages! How the cockroach must scratch his wise old head and chuckle as he remembers that time when huge reptiles strutted the marshes and ruled the world; when marsupials, stupid grandfathers of the opossum, held sway; when mastodons but yesterday had their fling! And now this youngster! Wait and see!

## BARBARIANS À LA MODE<sup>1</sup>

BY HENRY S. CANBY

The liberal mind, which just now is out of a job in politics, might very well have a look at the present state of literature. A task is there ready for it.

Our literature is being stretched and twisted or hacked and hewed by dogmatists. Most of the critics are too busy gossiping about plots and the private lives of authors to devote much attention to principles. But the noble few who still can write about a book without

<sup>1</sup> From *Definitions*, by Henry S. Canby, Copyright, 1922, by Harcourt, Brace & Co., Inc.



falling into it, or criticize an author's style without dragging in his taste in summer resorts, are chiefly concerned with classifications. Is our author conservative or radical? Are his novels long or short skirted? Does he write for *Harper's* or *The Dial*? They have divided America chronologically into the old and the new and geographically into East or West of the Alleghanies, or North or South of Fourteenth Street in New York. Such creative writers as have a definite philosophy of composition are equally categorical. And both are calling upon liberal minds, who are supposed to have no principles of their own, to umpire the controversy.

The liberal mind, which I believe in, though I hesitate to define it, has too much work before it to umpire in a dispute over the relative taste of the decayed and the raw. In literature, as in pretty much everything else, the central problem is not the struggle of the old with the new; it is the endless combat of civilization (which is old *and* new) against barbarism. Under which banner our writers are enlisting is the vital question. Whether they are radical or conservative will always in the view of history be interesting, but may be substantially unimportant. And the function of the liberal mind, with its known power to dissolve illiberal dogmatism, is to discover the barbarian wherever he raises his head, and to convert or destroy him.

The Greeks had a short way of defining the barbarian which we can only envy. To them, all men not Greeks were barbarians. By this they meant that only the Greeks had learned to desire measure in all things, liberty safeguarded by law, and knowledge of the truth

about life. Men not desiring these things were barbarous, no matter how noble, how rich and how honest. The ancient and highly conservative Egyptians were barbarous; the youthful and new-fangled Gauls were barbarous. An Egyptian in nothing else resembled a Gaul, but both in the eyes of the Greek were barbarians.

Evolution and devolution have intervened. The Gaul has become one of the standards of civilization; the Egyptian has died of his conservatism, but the problem of the barbarian remains the same. There are neo-Gauls today and neo-Egyptians.

These gentry do not belong to the welter of vulgar barbarism, the curse of a half-educated, half-democratized age. They are found among the upper classes of the intellect, and can rightly be called by such names as conservative or radical, which show that they are part of the minority that thinks. Indeed, they are not barbarous at all in the harsh modern sense of the word; yet the Greeks would have condemned them.

The barbarism of the neo-Gaul is unrestraint ("punch" is the nearest modern equivalent). The neo-Gaul is an innovator and this is his vice. It is a by-product of originality and a symptom of a restless desire for change. The realist who makes a poem, not on his lady's eyebrows but her intestines, is a good current example. The novelist who shovels undistinguished humanity, just because it is human, into his book is another. The versifier who twists and breaks his rhythm solely in order to get new sounds is a third. A fourth is the stylist who writes in disjointed phrases

and expletives, intended to represent the actual processes of the mind.

The realist poet, so the Greeks would have said, lacks measure. He destroys the balance of his art by asking your attention for the strangeness of his subject. It is as if a sculptor should make a Venus of chewing gum. The novelist lacks self-restraint. Life interests him so much that he devours without digesting it. The result is like a moving picture run too fast. The versifier also lacks measure. He is more anxious to be new than to be true, and he seeks effects upon the reader rather than forms for his thought. The bizarre stylist misses truth by straining too much to achieve it. Words are only symbols. They never more than roughly represent a picture of thought. A monologue like this, as the heroine goes to shop:

“Chapel Street . . . the old hardware shop . . . scissors, skates glittering, moonlight on the ice . . . old Dr. Brown’s head, like a rink. Rink . . . a queer word! Pigeons in the air above the housetops—automobiles like elephants. Was her nose properly powdered? . . . Had she cared to dance with him after all?”

is not absolutely true: it is not the wordless images that float through the idle mind, but only a symbol of them, more awkward and less informative than the plain English of what the heroine felt and thought.

All these instances are barbarous in the Greek sense, and their perpetrators, no matter how cultivated, how

well-meaning, how useful sometimes as pioneers and path-breakers, are barbarians. Some of them should be exposed; some chided; some labored with, according to the magnitude and the nature of their offense. The critics who uphold and approve them should be dealt with likewise. And it is the reader with the liberal mind who is called to the task. He is in sympathy, at least, with change, and knows that the history of civilization has been a struggle to break away from tradition and yet not go empty-handed; he can understand the passion to express old things in a new and better way, or he is not intellectually liberal. It takes a liberal mind to distinguish between barbarism and progress.

Next there is the *rigor mortis* of the neo-Egyptians, the barbarism of the dead hand, called by the unkind and the indiscriminating, academic barbarism.

Let us humor the Menckenites by so calling it, and then add that it is by no means confined to the colleges, although it is a vice more familiar in critics than in creative artists. A Ph. D. is quite unnecessary in order to be academic in this sense, just as one does not have to be a scholar in order to be pedantical. To stand pat in one's thinking (and this is the neo-Egyptian fault) is to be barbarous, whatever the profession of the thinker. True, the victims of this hardening of the brain are precisely those men and women most likely to fling taunts at the moderns, just those who would rather be charged with immorality than barbarism. And yet, to be bound to the past is as barbarous in the Greek sense as to be wholly immersed in the present. The Egyptians, for all their learning, were barbarians.

Barbarian is not as rude a word as it sounds. Most of the great romanticists had strains of the barbarous in them—the young Shakespeare among them. Indeed, much may be said for sound barbarian literature, until it becomes self-conscious, though not much for barbarian criticism. Nevertheless, I do not intend in this sally against the slavish barbarism of the merely academic mind to hurl the epithet recklessly. Lusty conservatives who attack free verse, free fiction, ultra realism, “jazzed” prose, and the socialistic drama as the diseases of the period have my respect and sympathy, when it is a disease and not change as change that they are attacking. And, often enough, these manifestations *are* symptoms of disease, a plethoric disease arising from too high blood pressure. Hard-hitting conservatives were never more needed in literature than now, when any one can print anything that is novel, and find some one to approve of it. But there are too many respectable barbarians among our American conservatives who write just what they wrote twenty years ago, and like just what they liked twenty years ago, because that is their nature. In 1600 they would have done the same for 1579. Without question men were regretting in 1600 the genius of the youthful Shakespeare of the '80's, later quenched by commercialism (see the appeals to the pit and the topical references in “Hamlet”); and good conservatives were certainly regretting the sad course of the drama which, torn from the scholars and flung to the mob, had become mad clowning. What we need in the Tory line is not such ice-bound derelicts but men who are passionate about the past because they find



their inspiration there, men and women who belabor the present not for its existence, but because it might have been better if it had been wiser.

They must, in short, be Greeks, not barbarians. It is the reverse of barbarous to defend the old, but the man who can see no need, no good, no hope in change is a barbarian. He flinches from the truth physical and the truth spiritual that life is motion. I particularly refer to the literary person who sneers at novels because they are not epics, and condemns new poems or plays unread if they deal with a phase of human evolution that does not please him. I mean the critic who drags his victim back to Aristotle or Matthew Arnold and slays him on a text whose application Aristotle or Arnold would have been the first to deny. I mean the teacher who by ironic thrust and visible contempt destroys the faith of youth in the literary present without imparting more than a pallid interest in the past. I mean the essayist who in 1911 described Masfield as an unsound and dangerous radical in verse, and in 1921 accepts him as the standard "modern" poet by whom his degenerate successors are to be measured.

All this is barbarism because it is ignorance or denial of the laws of growth. It belongs anthropologically with totemism, sacerdotalism, neo-ritualism, and every other remnant of the terrible shackles of use and wont which chained early man to his past. It is Egyptian. Its high priests are sometimes learned, but their minds are frozen. Beware of them.

In England, so far as I am able to judge, this variety of barbarism shows itself usually in a rather snobbish



intolerance of anything not good form in literature. The universities still protect it, but its home is in London, among the professional middle class.

In America its symptom is well-disguised fear. Some of us are afraid of our literary future just as many of us are afraid of democracy. Poetry and criticism (we feel) which used to be written by classicists and gentlemen are now in the hands of the corn-fed multitude, educated God knows how or where. Fiction, once a profession, has become a trade, and so has the drama. The line between journalism and literature is lost. Grub Street has become an emporium. Anyone, anything can get into a story or a sonnet. . . .

The Greek of today (as we venture to define him) views all this with some regret, and more concern. He sees that fine traditions are withering, that fine things are being marred by ignorant handling. He fears debasement, he hates vulgarity, and his realist soul admits the high probability of both in a society whose standards are broader than they are high. But he also sees new energies let loose and new resources discovered; he recognizes new forms of expression, uncouth or colloquial, perhaps, but capable of vitality and truth, and not without beauty. He bends his mind toward them, knowing that if he ignores them their authors will ignore him and his kind.

The Egyptian is afraid. He pulls his mantle closer about him and walks by on the other side.

Here again is work for the liberal mind. If it is really liberal—which means that training and disposition have made it free to move through both the past

and the present—it can cope with this Egyptian barbarism; for liberal-minded lovers of literature, by performing a very simple operation in psychoanalysis, can understand how love for the good old times may cause fear lest we lose their fruits, and how fear blinds the critic's eye, makes his tongue harsh, and his judgment rigid as death.

Liberalism in politics is sulking just now, like Achilles in his tent, its aid having been invited too early, or too late. But the liberal spirit can never rest, and we solicit its help in literature. I have mentioned the Gauls and the Egyptians as the enemies within the camp of the intellectual, but beyond them lie the uncounted numbers of the outer barbarians, the mass of the unillumined, to whom neither tradition nor revolt, nor anything which moves and has its being in the intellect has any significance. Here is the common enemy of all, who can be conquered only by converting him. When the Gaul and the Egyptian are liberalized, the real job begins.

“If we compose well here, to Parthia.”

## THE SOCIAL VALUE OF THE COLLEGE-BRED <sup>1</sup>

BY WILLIAM JAMES

Of what use is a college training? We who have had it seldom hear the question raised—we might be a little nonplused to answer it offhand. A certain amount of meditation has brought me to this as the pithiest reply which I myself can give: The best claim

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that a college education can possibly make on your respect, the best thing it can aspire to accomplish for you, is this: that it should *help you to know a good man when you see him*. . This is as true of women's as of men's colleges; but that it is neither a joke nor a one-sided abstraction I shall now endeavor to show.

What talk do we commonly hear about the contrast between college education and the education which business or technical or professional schools confer? The college education is called higher because it is supposed to be so general and so disinterested. At the "schools" you get a relatively narrow practical skill, you are told, whereas the "colleges" give you the more liberal culture, the broader outlook, the historical perspective, the philosophic atmosphere, or something which phrases of that sort try to express. You are made into an efficient instrument for doing a definite thing, you hear, at the schools; but, apart from that, you may remain a crude and smoky kind of petroleum, incapable of spreading light. The universities and colleges, on the other hand, although they may leave you less efficient for this or that practical task, suffuse your whole mentality with something more important than skill. They redeem you, make you well-bred; they make "good company" of you mentally. If they find you with a naturally boorish or caddish mind, they cannot leave you so, as a technical school may leave you. This, at least, is pretended; this is what we hear among college-trained people when they compare their education with every other sort. Now, exactly how much does this signify?

It is certain, to begin with, that the narrowest trade

or professional training does something more for a man than to make a skillful practical tool of him—it makes him also a judge of other men's skill. Whether his trade be pleading at the bar or surgery or plastering or plumbing, it develops a critical sense in him for that sort of occupation. He understands the difference between second-rate and first-rate work in his own line as soon as he sees it; and getting to know this in his own line, he gets a faint sense of what good work may mean anyhow, that may, if circumstances favor, spread into his judgments elsewhere. Sound work, clean work, finished work: feeble work, slack work, sham work—these words express an identical contrast in many different departments of activity. In so far forth, then, even the humblest manual trade may beget in one a certain small degree of power to judge of good work generally.

Now, what is supposed to be the line of us who have the higher college training? Is there any broader line—since our education claims primarily not to be “narrow”—in which we also are made good judges between what is first-rate and what is second-rate only? What is especially taught in the colleges has long been known by the name of the “humanities,” and these are often identified with Greek and Latin. But it is only as literatures, not as languages, that Greek and Latin have any general humanity-value; so that in a broad sense the humanities mean literature primarily, and in a still broader sense, the study of masterpieces in almost any field of human endeavor. Literature keeps the primacy; for it not only *consists* of masterpieces, but is largely *about* masterpieces, being little more than an

appreciative chronicle of human master-strokes, so far as it takes the form of criticism and history. You can give humanistic value to almost anything by teaching it historically. Geology, economics, mechanics, are humanities when taught with reference to the successive achievements of the geniuses to which these sciences owe their being. Not taught thus, literature remains grammar, art a catalogue, history a list of dates, and natural science a sheet of formulas and weights and measures.

The sifting of human creations!—nothing less than this is what we ought to mean by the humanities. Essentially, this means biography; what our colleges should teach is, therefore, biographical history, that not of politics merely, but of anything and everything so far as human efforts and conquests are factors that have played their part. Studying in this way, we learn what types of activity have stood the test of time; we acquire standards of the excellent and durable. All our arts and sciences and institutions are but so many quests of perfection on the part of men; and when we see how diverse the types of excellence may be, how various the tests, how flexible the adaptations, we gain a richer sense of what the terms “better” and “worse” may signify in general. Our critical sensibilities grow both more acute and less fanatical. We sympathize with men’s mistakes even in the act of penetrating them; we feel the pathos of lost causes and misguided epochs even while we applaud what overcame them.

Such words are vague and such ideas are inadequate, but their meaning is unmistakable. What the col-



leges—teaching humanities by examples which may be special, but which must be typical and pregnant—should at least try to give us, is a general sense of what, under various disguises, *superiority* has always signified and may still signify. The feeling for a good human job anywhere, the admiration of the really admirable, the dis-esteem of what is cheap and trashy and impermanent—this is what we call the critical sense, the sense for ideal values. It is the better part of what men know as wisdom. Some of us are wise in this way naturally and by genius; some of us never become so. But to have spent one's youth at college, in contact with the choice and rare and precious, and yet still to be a blind prig or vulgarian, unable to scent out human excellence or divine it amid its accidents, to know it only when ticketed and labeled and forced on us by others, this indeed should be accounted the very calamity and shipwreck of a higher education.

The sense for human superiority ought, then, to be considered our line, as boring subways is the engineer's line and the surgeon's is appendicitis. Our colleges ought to have lit up in us a lasting relish for the better kind of man, a loss of appetite for mediocrities, and a disgust for cheapjacks. We ought to smell, as it were, the difference of quality in men and their proposals when we enter the world of affairs about us. Expertness in this might well atone for some of our awkwardness at accounts, for some of our ignorance of dynamos. The best claim we can make for the higher education, the best single phrase in which we can tell what it ought to do for us, is, then, exactly what I said:



it should enable us to *know a good man when we see him*.

That the phrase is anything but an empty epigram follows from the fact that if you ask in what line it is most important that a democracy like ours should have its sons and daughters skillful, you see that it is this line more than any other. "The people in their wisdom"—this is the kind of wisdom most needed by the people. Democracy is on its trial, and no one knows how it will stand the ordeal. Abounding about us are pessimistic prophets. Fickleness and violence used to be, but are no longer, the vices which they charge to democracy. What its critics now affirm is that its preferences are inveterately for the inferior. So it was in the beginning, they say, and so it will be world without end. Vulgarity enthroned and institutionalized, elbowing everything superior from the highway, this, they tell us, is our irremediable destiny; and the picture-papers of the European continent are already drawing Uncle Sam with the hog instead of the eagle for his heraldic emblem. The privileged aristocracies of the foretime, with all their iniquities, did at least preserve some taste for higher human quality and honor certain forms of refinement by their enduring traditions. But when democracy is sovereign, its doubters say, nobility will form a sort of invisible church, and sincerity and refinement, stripped of honor, precedence, and favor, will have to vegetate on sufferance in private corners. They will have no general influence. They will be harmless eccentricities.

Now, who can be absolutely certain that this may not

be the career of democracy? Nothing future is quite secure; states enough have inwardly rotted; and democracy as a whole may undergo self-poisoning. But, on the other hand, democracy is a kind of religion, and we are bound not to admit its failure. Faiths and Utopias are the noblest exercise of human reason, and no one with a spark of reason in him will sit down fatalistically before the croaker's picture. The best of us are filled with the contrary vision of a democracy stumbling through every error till its institutions glow with justice and its customs shine with beauty. Our better men *shall* show the way and we *shall* follow them; so we are brought round again to the mission of the higher education in helping us to know the better kind of man whenever we see him.

The notion that a people can run itself and its affairs anonymously is now well known to be the silliest of absurdities. Mankind does nothing save through initiatives on the part of inventors, great or small, and imitation by the rest of us—these are the sole factors active in human progress. Individuals of genius show the way, and set the patterns, which common people then adopt and follow. *The rivalry of the patterns is the history of the world.* Our democratic problem thus is statable in ultra-simple terms: Who are the kind of men from whom our majorities shall take their cue? Whom shall they treat as rightful leaders? We and our leaders are the  $x$  and the  $y$  of the equation here; all other historic circumstances, be they economical, political, or intellectual, are only the background of occasion on which the living drama works itself out between us.

In this very simple way does the value of our educated class define itself: we more than others should be able to divine the worthier and better leaders. The terms here are monstrously simplified, of course, but such a bird's-eye view lets us immediately take our bearings. In our democracy where everything else is so shifting, we alumni and alumnae of the colleges are the only permanent presence that corresponds to the aristocracy in older countries. We have continuous traditions, as they have; our motto, too, is *noblesse oblige*; and, unlike them, we stand for ideal interests solely, for we have no corporate selfishness and wield no powers of corruption. We ought to have our own class-consciousness. "Les intellectuels!" What prouder club-name could there be than this one, used ironically by the party of "red blood," the party of every stupid prejudice and passion, during the anti-Dreyfus craze, to satirize the men in France who still retained some critical sense and judgment! Critical sense, it has to be confessed, is not an exciting term, hardly a banner to carry in processions. Affections for old habit, currents of self-interest, and gales of passion are the forces that keep the human ship moving; and the pressure of the judicious pilot's hand upon the tiller is a relatively insignificant energy. But the affections, passions, and interest are shifting, successive, and distraught; they blow in alternation while the pilot's hand is steadfast. He knows the compass, and, with all the leeways he is obliged to tack toward, he always makes some headway. A small force, if it never lets up, will accumulate effects more considerable than those of much greater forces if

these work inconsistently. The ceaseless whisper of the more permanent ideals, the steady tug of truth and justice, give them but time, *must* warp the world in their direction.

This bird's-eye view of the general steering function of the college-bred amid the driftings of democracy ought to help us to a wider vision of what our colleges themselves should aim at. If we are to be the yeast-cake for democracy's dough, if we are to make it rise with culture's preferences, we must see to it that culture spreads broad sails. We must shake the old double reefs out of the canvas into the wind and sunshine, and let in every modern subject, sure that any subject will prove humanistic, if its setting be kept only wide enough.

Stevenson says somewhere to his reader: "You think you are just making this bargain, but you are really laying down a link in the policy of mankind." Well, your technical school should enable you to make your bargain splendidly; but your college should show you just the place of that kind of bargain—a pretty poor place, possibly—in the whole policy of mankind. That is the kind of liberal outlook, of perspective, of atmosphere, which should surround every subject as a college deals with it.

We of the colleges must eradicate a curious notion which numbers of good people have about such ancient seats of learning as Harvard. To many ignorant outsiders, that name suggests little more than a kind of sterilized conceit and incapacity for being pleased. In Edith Wyatt's exquisite book of Chicago sketches called

*Every One His Own Way*, there is a couple who stand for culture in the sense of exclusiveness, Richard Elliot and his feminine counterpart—feeble caricatures of mankind, unable to know any good thing when they see it, incapable of enjoyment unless a printed label gives them leave. Possibly this type of culture may exist near Cambridge and Boston, there may be specimens there, for priggishness is just like painter's colic or any other trade-disease. But every good college makes its students immune against this malady, of which the microbe haunts the neighborhood-printed pages. It does so by its general tone being too hearty for the microbe's life. Real culture lives by sympathies and admirations, not by dislikes and disdains—under all misleading wrappings it pounces unerringly upon the human core. If a college, through the inferior human influences that have grown regnant there, fails to catch the robust tone, its failure is colossal, for its social function stops: democracy gives it a wide berth, turns toward it a deaf ear.

"Tone," to be sure, is a terribly vague word to use, but there is no other, and this whole meditation is over questions of tone. By their tone are all things human either lost or saved. If democracy is to be saved it must catch the higher, healthier tone. If we are to impress it with our preferences, we ourselves must use the proper tone, which we, in turn, must have caught from our own teachers. It all reverts in the end to the action of innumerable imitative individuals upon each other and to the question of whose tone has the highest spreading power. As a class, we college graduates



should look to it that *ours* has spreading power. It ought to have the highest spreading power.

In our essential function of indicating the better men, we now have formidable competitors outside. *McClure's Magazine*, *The American Magazine*, *Collier's Weekly* and, in its fashion, *The World's Work*, constitute together a real popular university along this very line. It would be a pity if any future historian were to have to write words like these: "By the middle of the twentieth century the higher institutions of learning had lost all influence over public opinion in the United States. But the mission of raising the tone of democracy, which they had proved themselves so lamentably unfitted to exert, was assumed with rare enthusiasm and prosecuted with extraordinary skill and success by a new educational power: and for the clarification of their human sympathies and elevation of their human preferences, the people at large acquired the habit of resorting exclusively to the guidance of certain private literary adventures, commonly designated in the market by the affectionate name of ten-cent magazines."

Must not we of the colleges see to it that no historian shall ever say anything like this? Vague as the phrase of knowing a good man when you see him may be, diffuse and indefinite as one must leave its application, is there any other formula that describes so well the result at which our institutions *ought* to aim? If they do that, they do the best thing conceivable. If they fail to do it, they fail in very deed. It surely is a fine synthetic formula. If our faculties and graduates could once collectively come to realize it as the great under-



lying purpose toward which they have always been more or less obscurely groping, a great clearness would be shed over many of their problems; and, as for their influence in the midst of our social system, it would embark upon a new career of strength.

### THE QUAININESS OF MR. CROTHERS<sup>1</sup>

BY FELIX E. SCHELLING

An ingenious friend of mine has divided books into two very definite and quite exclusive classes, the one of the other. These are the plus books and the minus books. This is not the same thing as the long books and the short ones; nor yet a matter dependent on the major or minor reputations of authorships. A plus book is a book the reading of which leaves the reader the better, the happier, the more hopeful; a book which appeals to what is good in you and lifts you a bit out of the slough and despondency of the world. A minus book is one which leaves the reader deprived, if not depraved, a book which clouds the sun and deafens the ear to the singing of birds and the prattle of children. A minus book may be true—most damnably true—it may be brilliant, imaginative, compelling, convincing; all this makes its minus quality the more certain, for it is art enlisted in the service of the enemy of mankind, who is always elbowing us into the sloughs of despond. Nor is a plus book that deadly thing, an improving book; for he who counts his gains in his reading like a

<sup>1</sup> From *Appraisements and Asperities*. Used by permission of the author and the publishers, J. B. Lippincott Company.

tradesman the balance of his ledger, should be deprived of the sweet uses of literature. A plus book is one that adds something to the clarity of our vision or to our charity toward men. It is a book which helps, which vitalizes and ennobles; not one which debilitates and unnerves.

In a new book by Mr. Crothers we are always sure of pleasure by the way, for he carries the torches of his quaint and original wit wherever he goes. We are sure likewise of something else, and that is of getting something tangible and to the good, not in the way of the brass counters of information, perhaps—for Mr. Crothers uses a coinage of a higher denomination and of a different metal—but in the way of a clearer, a kindlier, a saner view of the topic under discussion.

What an excellent thing it would be if we could catch some one of our busy "educators" and compel him to read and ponder such an essay as Mr. Crothers' "Dame School of Experience." Therein the author visits an ancient schoolhouse, older than the little red one which we sentimentalize about, presided over by "a withered dame" who discourses tartly on education from troglodyte times to our no very different own. After considerable fencing, noting which our "educator" might learn much from that past into which he is too busy to look, the author comments: "You have really modern ideas after all. You believe in learning by doing." "Not exactly," is the reply. "At least not by doing what they (the pupils) are told to do. My pupils are always doing something or other—and it is generally wrong. They have more activity than good

sense. The world is full of creatures that are doing things without asking why. You can't educate a grasshopper. He is too busy hopping. The peculiarity of man is that sometimes you can induce him to stop and think." Sometimes. Here is a thought for an "educator": "The real teacher is a radical reformer who habitually uses the most conservative means to attain revolutionary ends." Notice the antithesis between "the real teacher" and "the educator," who, if Mr. Crothers will forgive a parody of his words, is a timorous stand patter who incessantly employs revolutionary methods to attain mediocre results.

Here is a passage from "The Teacher's Dilemma," on a subject much misunderstood: "Up to a certain point we all believe in the process of leveling up. We would raise the grade of the highway till it gives a convenient approach to our door. Any uplifting of the road beyond that would leave us in a hole. We cease to regard the public improvement as a betterment and bring suit for damages." This, in its directness, its truth, humor and point, is distinctive of the original and effective method of Mr. Crothers. His teaching is much by parable. Has our "educator" discovered anything better since last Tuesday morning?

"Every Man's Natural Desire to be Somebody Else" searches into those dreams unrealized, those potentialities fated to remain such which lie hidden in the consciousness of us all. "The Perils of the Literate" finds in our very knowledge and reading the cause of many of our most cherished prejudices. The catechism in popular historical opinion as based on the prejudices of

reading is well put and it may give us cause to inquire, each of himself: "Do you really know any London except that of Dickens?" or "To what extent has your older history of England been dependent on drama or fiction?"

A droll idea—one thoroughly characteristic of Mr. Crothers—is that of a spiritual adviser of efficiency experts; and who could need any spiritual advice more sadly than he whose worship is of the great god, Get-things-done? Not many years since, the dean of a well known college boasted of a monthly session of his faculty in which, placing "the curve of ideal efficiency" (whatever that may mean) upon a blackboard, he compared it with the curve of each member of his unhappy official family, praising, admonishing, as the case might be, and, as he put it, "maintaining a grip on things," and on far more than things. Happily does Mr. Crothers say in another connection: "In dealing with a thing, you must first find out what it is, and then act accordingly. But with a person, you must find out what he is and then carefully conceal from him the fact that you have made the discovery." Mr. Crothers' advice to the efficiency experts is sadly needed and nothing could be neater than the satire of the experts' extension of his "methods" for the shoveling of clay by Sobrinsky and Flaherty, with the noted capacity of shovel and wheel-barrow and the time needed to move a hundred cubic feet of the same, to Goodwin and Brown, transferrers of literature by means of daily themes into the minds of so many freshmen in a given period of "loading and dumping."

In one of the most significant of these essays, Mr. Crothers pays attention to that recurrent topic, the Pilgrim Fathers. There is much more than pleasantry in his criticism of our prevalent extension of the motives and ideals which brought about the American Revolution backward into Puritan times where they do not belong. And the vivid picture of the Puritan spirit which he draws, especially in its emphasis on the state and its certainty as to its divine mission, is well brought into contrast with the vastly different ideals of the political equality of man which animated the politics of the Revolution. Mr. Crothers employs his learning, like his wit, in the interests of his subject, airing neither, but lighting his path with the steady glow of the one and the momentary superillumination of the other, as required.

A timely word, too, is that on the "Unpreparedness of Liberalism," in which the author calls seriously into question the notion that it is to the revolutionist alone that we owe human progress. Wisely does he admonish us that you can not tear down your house and continue to live in it, or leave it unrepaired and not be ultimately driven out of it. Moreover, it is not the house that is in need of repairing, but it is the man himself; and to kill him or leave him to his fate, neither is to cure him. Like all true idealists, Mr. Crothers is discouraged with the surge of materialism, selfishness and pettiness which is now engulfing our struggling world. And American leadership in all this is not enchanting. But steadfast, as a man of high hope, he writes of us as "in the dawn of a new day" in which, true to our essential



nature, we shall yet take up our responsibilities, international as well as national and parochial.

## THE TRIUMPH OF GREEK <sup>1</sup>

BY EDGAR J. GOODSPEED

Brain-proud men of science sourly say that Greek is dead. But to the Grecian mind it is refreshing to observe that familiarity with Greek is now extraordinarily widespread in this country. This is all the more fascinating at a time when the practical educators have triumphantly excluded the study of Greek from most institutions of learning, as an impractical subject, not suited to the training of a materialistic people.

As I look about the world in which I live, I observe that every high-school boy or girl knows his Greek letters. He does not have to be compelled to learn them. He wishes to learn them. He would feel humiliated if he did not learn them. He would be looked down upon by his companions as a person without social ideals. His college brothers are equally conversant with the eponym of all alphabets. So are their sisters and their sweethearts. They may not know the rule of three or the multiplication table; they may be without a single formula of chemistry or a solitary principle of physics; but, rely upon it, they will know their Greek letters. Their parents will know them, too. They will learn them at their children's knee, in all docility and eagerness, for fear of disgracing themselves and their off-

<sup>1</sup> From "Things Seen and Heard," in *The Atlantic Monthly*, September, 1921. Used by permission.



spring by not always and everywhere distinguishing the illustrious Tau Omicron Pi's from the despised Nu Upsilon Tau's. The fact is, it is difficult to be even a successful delivery boy in our community without knowing one's Greek letters.

I doubt whether the Greek alphabet was ever more widely and favorably known than now. In our midst the celebrated Cato could not have survived till eighty without learning it.

I shudder to think what anguish this must cause the practical educators aforesaid, as they walk abroad and see every house boldly and even brazenly labeled with the hated letters. Even their own favorite students, who show promise in the use of test-tubes and microscopes, insist upon labeling themselves with more of the Greek alphabet. Why will they not be content to call their honor societies by some practical Anglo-Saxon name, like the Bread and Brick Club, or the Gas and Gavel? But no! These rational considerations have no force with our youth. Nothing will satisfy them but more Greek letters. I have seen a man use twelve of them, or just half the alphabet, to set forth his social and learned affiliations.

Of course, to us Greek professors, shambling aimlessly about the streets with nothing to do, these brass signs are like the faces of old friends (no offense, I hope), and remind us of the names of the books of Homer, if nothing more.

But the Greek renaissance has gone much further than the alphabet. It pervades science. It is positively nonplusing to hear one's scientific friends rambling on

in the language of Aristotle and Euclid, with their atoms and ions, their cryoscopes and cephalalgias, their sepsis, analysis, and autopsies. The fact is, they really talk very little but Greek, which is one reason why we all admire them so. They are greatest when they are most Greek; and were their Greek vocabulary suddenly taken from them, half their books would shrivel into verbs. Three-fourths of them are indeed teaching Greek as hard as they can, though mercifully unconscious of the fact.

The Greek, on seeing a queer animal, waited till it was dead and then counted its toes. He thus soon knew enough to make a distinction between genus and species, which zoölogists are still talking about. Whence it comes about that our little Greek friends, the lion, the elephant, the rhinoceros, and the hippopotamus, are household favorites still. Consistent people who object to Greek will expunge these words from their vocabulary.

The Greek conquest of our social youth and of our grizzled age is nothing, however, to its triumphs in commerce. Here both letters and vocabulary come into their own. It must be admitted that we English-speaking people are poor word-makers. Only in moments of rare inspiration do we achieve a Nabisco or a Mazola. But in this age of new creations one of Adam's chief needs is names for the bewildering things he sees about him. How indispensable to us inarticulate moderns is the voluble Greek! Like one who hides a thimble for you to find, he has named everything in advance, and all we have to do is to discover it. From

Alpha Beer to Omega Oil, from Antikamnia to Sozodont, the Greek has taught us names. Even automobile is half Greek, which is really what makes it desirable. Who would want an ipsomobile? And Solon and moron, those twin pillars of the journalistic vocabulary, without which no newspaper could exist a week, are pure Grecian. When I attend the funeral of Greek, therefore, as I am constantly invited to do, I am comforted to observe old Greek himself and his whole family, thinly disguised, heading the chief mourners.

### THE CADENCE OF THE CROWD <sup>1</sup>

BY SIMEON STRUNSKY

I have always been peculiarly susceptible to the music of marching feet. I know of no sound in nature or in Wagner that stirs the heart like the footsteps of the crowd on the board platform of the Third Avenue "L" at City Hall every late afternoon. The human tread is always eloquent in chorus, but it is at its best upon a wooden flooring. Stone and asphalt will often degrade the march of the crowd to a shuffle. It needs the living wood to give full dignity to the spirit of human resolution that speaks in a thousand pair of feet simultaneously moving in the same direction; and particularly when the moving mass is not an army, but a crowd advancing without rank or order. I am exceedingly fond of military parades; so fond that I repeatedly find myself standing in front of ladies of medium height

<sup>1</sup> From *The Patient Observer*, by Simeon Strunsky. Used by permission of the publishers, Dodd, Mead & Co.

who pathetically inquire at frequent intervals what regiment is passing at that moment. But it is not the blare of the brass bands I care for, or the clatter of cavalry, which I find exceedingly stupid, or even the rattle of the heavy guns, but the men on foot. Only when the infantry comes swinging by do I grow wild with the desire to wear a conspicuous uniform and die for my country. Saint-Gaudens's man on horseback in the Shaw memorial is beautiful, but it is the forward-lunging line of negro faces and the line of muskets on shoulder that threaten to bring the tears to my eyes.

This, I suppose, is rank sentimentality; but I cannot help it. Any procession, no matter how humble, puts me into a state of mingled exaltation and tearfulness. It is in part the sound of human footsteps and in part the solemn idea behind them. I am not thinking of stately processions moving up the aisles of churches to the sound of music. I have in mind, rather, a band of, say, a thousand working girls on Labor Day, or of an Italian fraternal organization heavy with plumes and banners, or even a Tammany political club on its annual outing; wherever the idea of human dependence and human brotherhood is testified to in the mere act of moving along the pavement shoulder to shoulder. Above all things, it is a line of marching children that takes me quite out of myself. I was a visitor not long ago at one of the public schools, and I sat in state on the principal's platform. When the bell rang for dismissal, and the sliding doors were pushed apart so as to form one huge assembly room, and the children began to file out to the sound of the piano, the splendor and

the pathos of it overpowered me. I did not know which I wanted to be then, the principal in his magnificent chair of office, or one of those two thousand children keeping step in their march towards freedom.

Pathos? Why pathos in a little army of children marching out in fire drill, or the same children marching in for their morning's Bible reading and singing? I find it difficult to say why. Perhaps it is consciousness of that law which has raised man from the brute, and which I see embodied when we take a thousand children and range them in order and induce them to keep step. Perhaps the pathos is in the recognition of our isolated weakness and our need to make painful progress by getting close together and moving forward in close formation. In any case, the pathos is there. Consider a children's May party, on its way to Central Park. A fife-and-drum corps of three little boys in uniform leads the way. The Queen of the May, all in white, walks with her consort under a canopy of ribbons and flowers, a little stiffly, perhaps, and self-consciously, but not more so than older queens and kings on parade. A long line of boys and girls in many-coloured caps moves between flying detachments of mothers carrying baskets. The confectioner's wagon, laden with its precious commissariat of ice cream and cake, moves leisurely behind; for the confectioner's horse this is evidently a holiday. Is pathos conceivable in so delightful, so smiling, an event? Alas! I have watched May parties go by, and the serious little faces under the red and white caps have given me a heavier case of *Weltschmerz* than I have ever experienced at a performance of "Tristan and



Isolde." It was the fact of those little children advancing in unison; that is the word. If they had trudged or scurried along, pell-mell, I should not have minded. But May parties move forward in procession, and the movement of a compact crowd is, to me, always heavy with pathos.

But no crowd is like the afternoon crowd upon the wooden platform of the "L" station at City Hall. I don't mean to be sentimental when I say that the sound is to me like the march of human civilization and human history. Outwardly there is little to justify my grandiose comparison. You see only a heaving mass of men and women who are not very well clad. The men are unshaven, the women awry with a day's labor. They move on with that beautiful optimism of an American crowd which has been trained in the belief that there is always plenty of room ahead. There is very little pushing. Occasionally a band of young boys hustle their way through the crowd; but a New York crowd seems always to be mindful of the days when we were all of us boys. It is a reading public. The men carry newspapers whose flaring headlines of red and green give a touch of almost Italian color. The women carry cloth-bound novels in paper wrappers. But it is not an assemblage of poets or scholars or thinkers, or whatever class it is that is supposed to keep the world moving. It is that most solemn of all things—a city crowd on its way home from the day's work.

The footsteps keep up the tramp, tramp, on the board flooring, while train after train pulls out jammed within and without. The influx from the street allows no



vacuum to be formed upon the platform. The patience of the modern man shows wonderfully. The tired workers face the hour's ride that lies between them and home with beautiful self-restraint and courage. And in their weariness and their patience lies the full solemnity of the scene. The morning crowd, even on the same wooden platform at City Hall, is different. The morning crowd is not so firmly knit together. You catch individual and local peculiarities. You feel that there are men and women here from Harlem, and others from Long Island, and others from Westchester and the Bronx. They are still fresh from their separate homes, with their separate atmospheres about them. Some are brisk from the morning's exercise and the cold bath; some are still a bit sleepy from last night's pleasures; some go to the day's task with eager anticipation; some move forward indifferent and resigned. But when these same men and women surge homeward in the evening, they are one in spirit; they are all equally tired. The city and the day's task have seized upon them and passed them through the same set of rollers and pressed out their differences and transformed them into a single mass of weary human material. The city has had its day's work out of them and now sends them home to recruit the new supply of energy that it will demand tomorrow. The unshaven men with their newspapers and the listless women with their paper-covered novels show ascetically tight-drawn faces, as if the day had been passed in prayer and supplication. I need not see those faces; I know they are there from the steady footfalls on the board platform. I over-

hear a young girl recounting what a perfectly lovely time she had last night, and how she simply couldn't stop dancing; but her foot drags a bit heavily and there sounds in her chatter and her vehemence the ground-tone of weariness.

It is not often that I hear the tramp of the late afternoon crowd upon the wooden platforms at City Hall. I find the sound of the crowd too solemn to be endured every day, and there is no comfort in the crush. I usually take pains to travel at an early hour when there are few people and one is sure of a seat.

### THE FRINGE OF WORDS<sup>1</sup>

BY HENRY VAN DYKE

It seems to be generally agreed, just now, that somebody ought to "do something for English," which is assumed to be in a parlous state. I believe an extensive league (or association, if you prefer that word) has already been formed, and is actually functioning, for the purpose of protecting our beloved language from the dangerous modern influences which threaten it, on the one hand, through the ignorance and laziness of the vulgar, who content themselves with a poorhouse vocabulary of slang; and, on the other hand, through the pernicious activity of high-browed scholars and artists, who are overloading it with cacophonous polysyllabic compounds and strange bric-à-brac borrowed from foreign tongues. (I purposely illustrate what I de-

<sup>1</sup> From *The Yale Review*, October, 1922. Used by permission of the publishers of *The Yale Review*, the author, and the American Academy of Arts and Letters.

plore.) But is it just to imply that these dangers are altogether modern? They have been deprecated since the time when Thomas Fuller noted the "Chaucerisms" in Spenser, and *The Spectator* regarded such words as "sham" and "mob" as common cant. All that we can fairly say is that in our times the tendencies towards over-distension and impoverishment both seem unduly active. The dictionaries have swollen enormously, one might almost say dropsically: 317,000 terms in the one-volume *Standard*; and in the many volumes of the "New English" enough to supply a man with reading for ten years at the rate of fifteen minutes a day. Contrariwise the store of words actually used by some of the new novelists and the new poets looks pitifully meager when we remember that Shakespeare employed 15,000 and Milton 8,000 in his poems.

But the real perils of the English language today, in my judgment, lie not in expansion or in contraction of vocabulary; but much more in a certain noisy carelessness or sloppy indifference; a failure to recognize that thought is desirable not only before speech but also in speech; an apparent numbness to the finer sense of words. The effects of this creeping paralysis may be observed constantly in streets and shops and ballrooms, and frequently in books and newspapers. For example, a distinguished historian writes that he proposes to "assess" a certain character, when he has no intention of taxing it, but simply means to estimate its worth. A popular novelist makes his hero leave a room "precipitously," yet without throwing him down the stairs or letting him leap from a window. An ardent advertiser

proclaims the "slogān" of his ready-made clothing, although his purposes are all pacific. Even a philosopher, a Platonist, writes that certain plays "intrigue" him, when evidently he means not that they perplex him, but merely that they interest him.

These, you may say, are only slips of the pen, mistakes which are insignificant and may be readily pardoned. But when the carelessness which they show becomes habitual and general, when it pervades, not only ordinary conversation but also many highly praised books of prose and verse, we may well ask ourselves whether this is not rather a disquieting symptom. Language as an instrument of human culture and intercourse (perhaps superior to the moving pictures, which are dumb) derives its highest value from the power of its words finely to convey the different shades and degrees of human thought and feeling. Losing this, how shall we replace it? Our English will be no more "the tongue that Shakespeare spake," but the petty jargon of a jazz-party, or the loud-sounding, little-meaning verbiage of a patent-medicine promoter.

Let us reluctantly admit, then, that perhaps this is a time when somebody should "do something for English." What is it that ought to be done? Evidently little will be accomplished by stately resolutions in favor of upholding "standards," adopted by such select bodies as the American Academy, most of whose members already have a pleasing conviction that they use pretty good English—or at least try to do so. Nor do I reckon that much benefit will accrue from the outpouring of verbal vials of wrath upon the younger genera-

tion for their supposed consentaneous defects of grammar and morals. Reform is seldom effected by abuse. It would be far more to the purpose to lay a finger upon some of the probable causes of the dreaded degeneracy; or, better still, to suggest ways of thinking and feeling about our language which may have in them some remedial and reinvigorating power. For, after all, thought and feeling are the most potent remedies.

It is in this line that I venture to offer my small contribution. I have no new philosophy of language, no new system of doctrine about poetry, to present. May the kind stars forbid that I should rush in where truant angels have not feared to tread. All that I want to do is to direct consideration to a certain element, or quality, of language which is too often overlooked, and to suggest that this consideration may throw some light upon the important and vexed question of poetic diction.

For poetry, as it is the earliest form, is also the most enduring and powerful form of literature, and does most to enlarge and illuminate human intercourse. "It is the poets," writes Sir Walter Raleigh, "who preserve language from pollution and enrich it with new powers. They redeem words from degradation by a single noble employment. They establish a tradition that bridges over the treacherous currents and quicksands of time and fashion." I hold therefore that good poetry is of great value to a people. It not only begets good prose, but also nourishes and keeps alive those sentiments of "admiration, hope, and love" by which we live. And it offers for their communication from mind to mind, from generation to generation, wonderfully condensed and



lasting and beautiful forms. These, it seems to me, are woven of the words that belong to the wedding garment of poetry. They are the true poetic diction. I should like to trace briefly the path of experience by which I was led to this conclusion. For, as Plutarch says, "It was not so much by means of words I came to a complete understanding of things, as that from things I somehow had an experience which enabled me to follow the meaning of words."

I knew that there was a difference between prose and poetry, something more than the difference between free rhythm and musical meter, but I could get no suggestion of its nature until one day, some twenty years ago, I came upon certain passages in the *The Principles of Psychology*, by William James.

"Knowledge *about* a thing," wrote this acute philosopher, "is knowledge of its relations. Acquaintance with it is limitation to the bare impression which it makes. Of most of its relations we are only aware in the penumbral, nascent way of a 'fringe' of inarticulated affinities about it. In all our voluntary thinking there is some topic or subject about which all the members of the thought revolve . . . Relation to our topic or interest is constantly felt in the *fringe*, and particularly the relation of harmony or discord, of furtherance or hindrance of the topic. When the sense of furtherance is there, we are 'all right'; with the sense of hindrance we are dissatisfied and perplexed, and cast about us for other thoughts. Now, any thought the quality of whose fringe lets us feel ourselves 'all right,'



is an acceptable member of our thinking, whatever kind of thought it may otherwise be."

These propositions, and others akin to them, William James expanded through many pages and illustrated with curves and cubes and straight lines and other geometrical figures, after the approved but somewhat bewildering method of modern psychologists. But the idea that caught and held my attention, according to the very doctrine which Mr. James set forth, was something that lay beyond "the limitation of the bare impression," something in the region of relations and affinities, the country of the "fringe."

If it be true, I said to myself, that things and thoughts have these fringes, these suffusions, these psychic overtones about them, may not the same be true of words, which are the symbols of thoughts and the images of things? Certainly words carry with them a subtle yet perceptible atmosphere of relations and suggestions beyond their literal meaning, a personal aura, as it were, derived sometimes from their sound (for the real word is always something heard, of which the written letters are only a conventional sign), or coming it may be from their associations, or a dim remembrance of their origin in some ancient tongue; or gathered from their use in human intercourse, and clinging to them, like "the odors of the valleys" which de Guérin's young Centaur perceived about his mother when she returned from her roaming in the outer world to their cave among the mountains. This indefinable power of suggestion and evocation in words is their magic, their secret of interpretation and revelation, the

hidden source from which their color and their fragrance rise like an exhalation.

It seemed to me at the time that this idea might be a clue to lead me through the labyrinth of discussion about the nature of the diction proper to poetry, and bring me at least a little nearer to the truth. I disfigured (or enriched) the margin of a page in Professor James' valuable text-book with a written note: "Poetic language—its value and beauty derived from these fringes of words." Since then I have thought much about the suggestion, and tried to test it by application to various poems, in order to discover what truth it contained, and what were the limitations to be observed to prevent it from exaggerating itself into a falsehood.

Of course, the reader trained in the subtleties of thought and the niceties of expression is aware of these limitations, reservations and exceptions before they are stated, and takes them for granted without discussion. For example, that some words have more, some less, and some very little of this fringe, this *aura* of suggestion, about them; that the effect even of the richest words depends a good deal on the intelligence and sensitiveness of the listener or the reader, and that some men are born color-blind to language, and others in the glare of the electric light achieve color-blindness; that a considerable part both of excellent prose and of admirable verse is written in very plain and simple words which derive what Sir Walter Raleigh calls their "bare, intolerable force" from the way in which they are used, the order in which they are arranged, or the stark sincerity with which they express a deep and

powerful feeling; that the central elements of poetry, strong emotion and vivid imagination, are more important than verbal magic and musical charms; these are propositions which every sensible man will admit without argument.

But after these limitations are accepted, what remains of value in this suggestion of the fringe of words as a thing to be considered in poetry? I think there remains a twofold truth, one side of which raises a barrier against bad diction, while the other indicates the way to language which will clothe the poet's thought in beauty.

There are words which are distinctly non-poetic—scientific terms; technical phrases of law or business; mere colloquialisms, like "Oh say"; and ancient *clichés* of imagery which have been worn smooth by much handling. There are also words which, by reason of ludicrous or trivial associations, are positively anti-poetic, because they break the "stream of thought" and create that "sense of hindrance" which, as William James says, leaves us "dissatisfied and perplexed." This is why some of the verses of the Impressionists and the Vers Librists are so hard to read and so impossible to remember. They are like packs of fire-crackers, exploding in a series of violent concussions. Or they are like dull rivers, laden with absurd débris, trailing through a region of backyards and scrap-heaps.

Here are a few illustrations of anti-poetic diction. A late Georgian poet, writing about the sunset, describes the Earth as a weary Titan,

"Panting red pants into the dying day."

Mr. Carl Sandburg says,

"The past is a bucket of ashes."

Now, "ashes of the past" was once a poetic phrase, though it has now become rather a cliché. But when you lug in the "bucket," it makes one think of the janitor and the garbage-can. Mr. Edgar Lee Masters writes, in a much-noticed book of free verse.

"Knowlt Hoheimer ran away to the war  
The day before Carl Trenary  
Swore out a warrant through Justice Arnett  
For stealing hogs."

*Spoon River Anthology*, from which this extract is taken, is a good volume of raw material for vivid short stories in prose, but to call it poetry is to manhandle a sacred word.

On the other side, there is a kind of language which by virtue of the fringe of associations belongs to poetry, and has a singular power to enhance its beauty and to deepen its meaning. It is in this diction that the finest passages, the most memorable lines, are written. Sometimes it is by the succession or stately ordering of rich phrases that the effect is produced, like the unrolling of a splendid tapestry. Sometimes it is by a single touch that the imagination is evoked and the passage irradiated. This is what Tennyson meant, and illustrated, in his fine poem "To Virgil":

"All the charm of all the Muses often flowering in a  
lonely word."

In Shakespeare's thirtieth sonnet is another example:

"When to the sessions of sweet silent thought  
I summon up remembrance of things past."

In prose the meaning is simply this: "While I am quietly thinking I begin to recollect past events." But in poetry sweet silent thought is holding the sessions of her court, and remembrance is summoned as a witness.

In "Samson Agonistes," Milton puts these words into the mouth of old Manoa, standing by the dead body of his mighty son:

"Nothing is here for tears, nothing to wail  
Or knock the breast; no weakness, no contempt,  
Dispraise, or blame; nothing but well and fair,  
And what may quiet us in a death so noble."

What a magic there is in that word "quiet," with its reminiscence of the Latin *requiescat*, and of the verse in the Psalms, "Then are they glad because they be quiet; so he bringeth them unto their desired haven."

One of Wordsworth's shorter poems begins thus:

"There is an Eminence,—of these our hills,  
The last that parleys with the setting sun."

It is enough for prose to say that this hill is touched by the latest ray of sunset while the other hills are in shadow. But poetry will have it that the mountain "parleys" with the departing sun in that golden hour.

Take two or three illustrations from living American poets. Edwin Markham writes of the death of Lincoln:

"And when he fell in whirlwind, he went down  
As when a kingly cedar green with boughs  
Goes down with a great shout upon the hills  
And leaves a lonesome place against the sky."

George Woodberry in his elegy, "The North Shore Watch," says:

"Beauty abides, nor suffers mortal change,  
Eternal refuge of the orphaned mind."

Edwin Arlington Robinson, whose Muse is wont to walk in plain and stringent robes, writes in "L'Envoi" to "The Children of the Night":

"Now in a thought, now in a shadowed word,  
Now in a voice that thrills eternity,  
Ever there comes an onward phrase to me  
Of some transcendent music I have heard."

Turn back now to one of the most perfectly poetic of all English poems, John Keats's "Ode to a Nightingale." Mark the fringes of the woven words in a single stanza:

"Thou wast not born for death, immortal Bird!  
No hungry generations tread thee down;  
The voice I hear this passing night was heard  
In ancient day by emperor and clown:  
Perhaps the self-same song that found a path  
Through the sad heart of Ruth, when, sick for home,  
She stood in tears amid the alien corn;  
The same that ofttimes hath  
Charm'd magic casements, opening on the foam  
Of perilous seas, in faery lands forlorn."

"Forlorn!" he cries in the next stanza, "the very word is like a bell." Yes, Young Master, you know the secret of your art. Her chosen words, her best-loved, most



potent words are like bells with their overtones and undertones; great bells whose deep roar throbs far over sea and shore; loud bells that fiercely sound the tocsin above sleeping cities; glad bells that chime for festivals of mirth; mournful bells that toll for human sorrow; soft bells that ring the angelus of rest for weary hearts. Into his high belfry the poet climbs alone; he lays his hand upon the word-keys whose fringed tones he knows by instinct; he presses them and the blending bell-music flows upon the air, awakening hope and courage, quickening joy, purifying fear, soothing grief, meaning always far more than it says, and as it dies away at last, leaving in the soul that undying pleasure which it is the mission of Poetry to impart—something immortal—

“We feel that we are greater than we know.”

### BRIDGE-BUILDERS <sup>1</sup>

BY W. M. LETTS

Words are bridges. They link continent with continent, island with island. Oceans are as nothing to them. They build their airy fabric as strongly, as reliably as any engineer who ever tunneled the Rockies, crossed a canyon, or spanned a strait.

I have been thinking lately of the bridges that link America with England and the English-speaking lands. Thirty years ago, or forty, or more, there was a bridge that was crossed all day and every day by thousands of

<sup>1</sup> From the *Yale Review*, January, 1925. Used by special permission of the author and the publishers.

feet, children's for the most part. They pattered from schoolroom or nursery away to the primeval forests of America. The very word "primeval" was one which we used, I remember, often in the schoolroom of a bygone day. We had no idea what it meant. I scarcely know now. "A primeval forest" is an exquisite, adventurous thing which we did not have in England. But to childhood America called the enchanting summons to primeval forests, where maples and gray squirrels and raccoons abound.

Chief of these bridge-builders was Longfellow. Poet of the schoolroom! What of that? Many men have had worse titles. The poet of a pothouse need not be a finer poet, though the elect will prefer him. Today Longfellow's fame is damned by his simplicity, his facility, his appeal to the dwellers in literary Philistia. But I maintain that in this very character of schoolroom poet he linked two continents. He called young England across the Atlantic, and the children came with eager feet and friendly eyes. They came to learn, and he taught them what the New World can give the Old. He took from them their boast that the Old World alone can give romance to the New. Romance, that exquisite essence of high spiritual adventure, was in the hands of the New World to give. Victorian schoolrooms were nourished by it. And because the schoolroom lays foundations that are never cast down, the late Victorian still thinks of America in terms of "Hiawatha" and "Evangeline" and "Miles Standish."

I speak from personal experience of a schoolroom in

the latter days of the Victorian era. I do not defend the Victorian system of education conducted by a governess (usually a gentlewoman "who had seen better days"); only I claim that it had certain benefits, and that acquaintance with Longfellow was one of these benefits. We learned almost as an article of faith "The Wreck of the *Hesperus*." Is there anywhere on earth a child of that tradition who cannot still repeat this poem? No tragedy—not the history of Bluebeard nor the cruel fate of the Babes in the Wood—impressed me with such a sense of fatality as that rash voyage of the *Hesperus*. No Georgian critic, I suppose, would find any virtue in the lines. The Sitwells would scarcely have printed it in "Wheels," but it had, for Victorian childhood, a terror and disaster comparable to a Greek tragedy. The rashness of the skipper, the warning of the old Mariner who "had sailed the Spanish Main"—mark the hinted volumes of romance in that one line—the fragile and doll-like beauty of "his little daughter" (pronounced daughtér at the schoolroom table), the terror of the church bells heard in the storm, the sound of guns—all these poignant things culminated in the stark simplicity of:

"But the father answered never a word,  
A frozen corpse was he."

I have never seen a frozen corpse, but the sheer horror of that silent and frozen father thrills me yet.

There were lines unforgettable, however one mumbled or pattered them to the presiding governess; "the white and fleecy waves looked soft as carded wool,"

"he saw her hair, like the brown sea-weed," and then the solemn tolling words of the last verse.

"Christ save us all from a death like this,  
On the reef of Norman's Woe."

I do not think it was a small thing so to thrill a million schoolrooms, even if the glory is quenched in the roar of Georgian laughter. But even the young Georgian today cannot resist the appeal of that sea-born story. Only a little while ago a small English boy was heard importuning his sister to repeat "*Schooner Yesprus*," showing that the magic is not yet dead. There were all the hackneyed poems, dear now for memory's sake: "The Village Blacksmith," "The Belfry of Bruges," "The Reaper," the story of that incredibly foolish youth who answered "Excelsior" to all questions, even to the pleading of the forward young woman who begged him to lay his head upon her breast; these poems had their value in childhood and were accepted without criticism, but the unique glory of Longfellow to the English child was as the poet of the Red Indian.

In England today childhood revels in the wonders of engineering; it plays solemnly with Meccano or gloriously with Hornby trains. If it has any spare time for romance it may think of Peter Pan or thrill a little over the adventures of scouting. But in the later Victorian period, English children turned to America for romance. Cowboys and Red Indians—is there such a glory of enthusiasm anywhere today as we felt for these god-like beings who abounded, so we believed, on the far side of the Atlantic? The romance was

fostered by prose as well as by poetry. Ballantyne and Fenimore Cooper wrote stories of Red Indians. That popular children's Annual, *Harper's Young People*, fostered the fever for the cowboy and the Redskin. Can anyone else, I wonder, recall the tears and delight of reading "Hassee the Sunbeam"?

Every now and then enthusiasm was freshly kindled by the visit to England of Buffalo Bill's Wild West Show. Ecstasy is but a rare mountain-top moment, a vision, a flash to be cherished in memory, a foretaste, maybe, of the unquenchable enthusiasm of a deathless tomorrow; but its coming was coincident for many of us with the arrival of Buffalo Bill in some somber English town. How suddenly the gateway of romance was flung open and we looked across the vast buffalo-haunted prairie. Across it came galloping the splendid figures of cowboys, hairy about the legs and shaggy of lock. They mastered bucking broncos, they flung the lasso, they did incredible feats of shooting. Who can forget their meteor-like appearance in our drab Lancashire world? Buck Taylor, Little Bengy, the Cowboy Kid, Sitting Bull, the Sioux chief, Red Shirt—I know a table drawer where their photographs still lie cherished. One never-to-be-forgotten scene was the coming of the Deadwood Coach across the arena and its attack by Red Indians, a thrilling moment that! But our hearts were horribly divided, for we loved cowboys and Indians equally and it was impossible to wish the death of either side. We saw Buffalo Bill, too. I never gazed at Queen Victoria, but I have seen one of the greatest figures of her time—Buffalo Bill,



the man who captivated the fancy of all English-speaking children, one who gave them a literature and a never-failing game. Were not our schoolroom and bedrooms divided into ranches and decorated with wigwams and canoes, with head-dresses and articles resplendent in porcupine quills? Had we not Indian names and a smattering of words gathered from "Hiawatha"? For this absorption in the Wild West led us straight to "Hiawatha." It was the bridge by which English children in that day rushed to the alluring Western World.

Each of us in that schoolroom felt a deep conviction that some day we should tread the prairies and primeval forests. The sister who said with solemn conviction that she believed she had a vocation to be "a mission-woman to cowboys" scored a spiritual victory which her younger sisters dared not claim. But we could assert with undaunted pride that once in a train we met a lady who actually *knew* a cowboy. Thus can the fringes of greatness be touched by reverent fingers!

It is undeniable that the poet of Wild West romance was Longfellow. William Rossetti, in his critical preface to the poems, admits this fact as the poet's claim on posterity. Speaking of "Evangeline" and "Hiawatha," he says: "These, if I am not mistaken, are works made for posterity and for permanence. 'Evangeline,' whatever may be its shortcomings and blemishes, takes so powerful a hold of the feelings that the fate which would at last merge it in oblivion could only be a very hard and even perverse one. Who that has read it has ever forgotten it? or in whose memory



does it rest as other than a long-drawn sweetness and sadness, that has become a portion, and a purifying portion, of the experiences of the heart? 'Hiawatha' has a different claim. It is a work *sui generis*, and alone; moreover, manly, interesting, and a choice and difficult piece of execution, without strain or parade. The native American legends and aboriginal tone of thought have to be preserved in some form or other, as a matter of natural and national necessity; they are here compactly preserved in a good poem, the work of a skilled artist. Were there a better poem than 'Hiawatha' forthcoming for the particular purpose the fate of this work would be remitted to casualty.

"But it is the first, maybe the last, of any distinguished value, and is amply fine enough to endure. I can hardly imagine it superseded, nor, until superseded, overlooked."

Those lines were written in 1870, and in 1924 "Hiawatha" still makes its magic. Coleridge-Taylor, with his music, gave it a new glory; and today, in an age that affects to flout Longfellow, the crowds that assemble in the Albert Hall in London are thrilled by the wedding of Hiawatha and Minnehaha.

I do not think there has ever been a bridge of words between America and England better loved than "Hiawatha." The parody-maker can laugh at it, the critic can say of it all that he said of Tennyson's "Idylls of the King," but he will not dislodge it from that affection which is beyond criticism. Human nature still longs to hear of high adventure, of the quest of the soul for a country beyond the farthest peaks. Human

nature still cherishes goodness and courage and faithful love, clinging to them wistfully, with the hope of better things out of sight. The cult of ugliness is always a passing fashion, but the quest of beauty is eternal. "Hiawatha" appealed to all that was gallant and faithful and hopeful in the English-speaking world. It had, too, the great charm of strange words, a lure that catches the child mind. Those softly voweled names—Hiawatha, Minnehaha, Nokomis, Shawondasee, Wabasso, Mishe-Mokwa—enchant the ear. A child's mind responds instantly to lines like these:

"Till the darkness fell around them,  
And the heron, the Shuh-shuh-gah,  
From her nest among the pine-trees,  
Gave a cry of lamentation,  
Gave a scream of pain and famine."

An English heron is a fine bird, but "the heron, the Shuh-shuh-gah," has a mystery and splendor that we do not know in our less lonely world. Indeed, I can remember a day when I could have faced an examination in the vocabulary that follows the poem, so great is the wonder of new words.

Longfellow was the best beloved bridge-builder between the English-speaking lands, perhaps because of that point of view which those lands had in common—a godly, slightly puritanical, slightly sentimental point of view. Walt Whitman was another bridge-builder, but fewer feet, though more elect, came his way. "The real American poet," wrote William Rossetti, "is a man enormously greater than Longfellow or any of his

other compatriots—Walt Whitman.” But Walt Whitman remained “caviare to the general.” Even when Robert Louis Stevenson linked him by the arm and introduced him, he kindled no vast enthusiasm in England. Philistia looked at him askance as a strange unkempt man who spoke with brutal intimacy and frankness of all unconventional things in a strange rhymeless language that had no warrant in the laws of prosody. Those who loved him were stout in allegiance, they thought of America as the land of Walt Whitman, they heard the voice of America speaking in those frank, passionate poems that were like Niagara itself in force; but they were the few.

A poet with a greater appeal for England was Whittier. “The Red River Voyageur” became inseparable from English imaginings of the western world.

“Only, at times, a smoke wreath  
With the drifting cloud-rack joins,—  
The smoke of the hunting-lodges  
Of the wild Assiniboins.”

These lines always recall to me—not the Red River, but the Irish river Liffey, and a boat that drifted down the willow-fringed, bird-haunted reaches between weir and weir, and the rower, leaning forward on his oars to repeat to three listening children those forgotten lines. It was as a dream bridge to the unknown world. Not long ago the Church of Ireland, in compiling a new Hymnal, showed a wisdom rare in hymnologists by choosing three poems by Whittier for inclusion. Lights they are in the shadowed wastes of banality around them.

The fascination of the Redskin to English childhood was great, for the Red Indians are the most gallant and romantic of the uncivilized races; but strong, too, and unique was the attraction of the American negro to children who never see a black face once in a year.

In the first poem that I ever learned to repeat I asserted that—

“I was not born a little slave beneath a burning sun,  
To wish I were but in the grave and all my labour done . . .”

Such sentiment fostered a profound interest in the little slave who might be laboring in the sun. But more cheerful pictures of his days in the Southern States became familiar in the words and music of the Christy Minstrels, sung by Victorian England and beloved by children. English childhood knew the Southern States as the home of Nellie Bly, Uncle Ned, Poor old Joe, Rosalie the Prairie Flower, and those cheery black dames, De Camptown ladies. Emancipation was before any recollections of mine, but we pitied and thrilled in retrospect when we read *Uncle Tom's Cabin*.

Then the author of “Uncle Remus” threw open the gates of a new Wonderland of talking animals, who spoke in a dialect strange and pleasing to English ears. Brer Rabbit's endless battle of wits with Brer Fox was of the very stuff that children love. There had been nothing quite like it since that old book *Reynard the Fox*. But “Uncle Remus” had a more gracious quality in his stories of animal cunning. “Brer Rabbit—he lie low” became a household saying in England. The

literature of a "Cause" is inclined to perish when the Cause is won, and the poems of the slave emancipation are less likely to survive than these old stories of Fox and Rabbit in the sunny Southern States.

The bridge-builders in prose are too many to name, but there are those among them who stand out in a Victorian memory as writers who brought American scenes, American people, American atmosphere to us in a way that was lovely, unforgettable, and new with the freshness of strange lands. Oliver Wendell Holmes in his "Breakfast-table" books gave us something rare and delightful, egoism of an endearing quality. Here was a talker who could command attention in the British Isles before the day of "listening in." He gave life and charm to a boarding-house and its guests. The schoolmistress, the old gentleman, "the young man John," were real people on both sides of an ocean. Here again was a bridge.

Louisa Alcott, the incarnation of an *Entente Cordiale* between English-speaking races, won all girls to love American girlhood drawn in *Little Women* and *Jo's Boys*. Jo, Meg, Amy, and Beth remain as real as our own aunts and grandaunts, but immortally young. To conform to modern ways they live now in cinema land. Emerson, Thoreau, Hawthorne, Bret Harte, all built bridges from different parts of the New World. Mary Wilkins led the way to New England and taught Old England the ways of her Puritan descendants.

Mark Twain made a bridge of laughter—a better thing than a Bridge of Sighs. Humor is often a national and indigenous plant that will not thrive in other coun-

tries. But Mark Twain was as funny in England as in America. His laughter was so kindly and so lovable that everybody shared it.

But for several decades the bridges from America have been prose. Since the days of Longfellow, Whittier, Lowell, Walt Whitman, the poetry of the New World has been little known, especially among children, in the British Isles.

The newest bridge, dear to us all, is the Nature book. Again we come to the lure of "the primeval forest." We in England who only know the pitiful caged beggars of Zoölogical Gardens are all agog to hear of bears and beavers, of moose and caribou, as they are in the limitless wilds of America. We are drawn by the vast curiosity that one country feels about another.

We may have castles and cathedrals, colleges and abbeys, but we have no prairies, no vast forests, no frozen wastes. We never hear the roar of a bull moose nor meet a bear when we take our walks abroad! We must cross that bridge of books to satisfy our curiosity, acknowledging that we who offer the romance of an Old World to the New, turn gratefully to the New World for wonder and romance that are its heritage by divine right.



## STUDENT THEMES

### PACKING A BURRO

THE task of packing a burro in a manner suitable for traveling through a wild and rugged back country should be classed among the fine arts. If anyone doubt this statement he need try it but once to be forever convinced. The writer was one time called upon to perform just such a feat and in just such a manner he was convinced.

Of course no two loads can be packed in the same way, but there are a few general rules that will apply to all cases. The first thing to bear in mind is that the pack burro is about the laziest, but at the same time the most intelligent animal on four legs. Couple these two characteristics with the temperament of a prima donna and you have possibilities. He is a marvel at devising schemes to get out of work or to snatch a few moments' rest on the trail. If he can get rid of his pack two or three times a day, he considers that day not ill spent. So before you do anything else *be sure* that your pack saddle is properly adjusted. I want to emphasize that phrase, "*be sure*." The neophyte in the packing game draws the cinch as tightly as he can by pulling at the strap and is satisfied—temporarily. The old packer works differently. He pulls the cinch strap through

the ring, steps back a pace, gives a sudden jerk, and at the same time delivers a hearty kick in the burro's "mid-riff." The burro grunts reproachfully and with a sigh of regret exhales the air that he has pumped into himself. The cinch thus secured will stay tight.

Next the packer should sort his load. If it is his first experience he merely dumps the conglomeration of food, ammunition, cooking utensils, and camp equipment into the paniers until they overflow, then ties the remainder on wheresoever he can find the room. If he is lucky the pack will slide off within the first hundred yards or so; if he is not it will invariably come off in the first bog spot or bit of bad going that he encounters, whereupon he will probably curse everything but his own inefficiency. The old-timer follows a different procedure. He surrounds himself with his possessions, squats leisurely upon his heels and hefts each article. In this way he builds up two piles of very nearly equal weight. Volume he disregards entirely. Then he hooks his paniers on the pack saddle, placing the same number on each side. Into those on one side he loads all that he can of one pile; those on the other he fills from the second heap. The remainder of each pile he ties to its proper side. The load is now so nicely balanced that it will not slide sideways. After all is tied on he takes about thirty feet of light rope and lashes the whole pack "fore and aft," around and under, so that it can slip neither forward nor backward in going up or down hill.

When all this has been done he tightens his belt, lights his pipe, cocks his head to observe the weather

prospects, and bestowing a starting kick upon the burro, plods forward on his day's journey.

### THE BANK CASHIER AND HIS CUSTOMERS

The utmost tact and discretion must be used in dealing with the various types of people with whom one comes in contact in the bank of a country town. No one is more painfully aware of this fact than the small-town cashier. His treatment of the good people must be tactful, regardless of circumstances or of his own mood. He must inspire the trust and confidence of his fellow-men; he must lead them to disclose their problems and offer them advice in times of need. They expect him to be a walking encyclopedia, and he must live up to their expectations to the last letter if he is to retain their respect and admiration. If Sarah Ann Petty's Maltese cat is poisoned and Sarah Ann's pension is not yet due, Cashier Horace Appleton of the Toonerville State Bank must soothe her "rumpled feelings" by advancing the money for the flowers to adorn the cracker-box casket. He must disregard his personal likes and dislikes and be cordial to all. The time that Percy Van Dorn told teacher that it was Horace who passed the notes and shot the tin-foil wads must be forgotten in order that he may treat Percy with the proper degree of cordiality.

Cashier Appleton soon learns that if he is to be successful in his chosen field he must revise his ideas of the meaning of the word "customers." A certain amount of experience in dealing with people teaches him the

practical truth that a customer should mean to him any person, man, woman, or child, whom he may chance to meet. They may not seem especially promising when regarded in the light of prospective customers, but there is always the possibility of that change in their circumstances which will make them worthy of his highest esteem. Under no conditions should he consider a customer as being only that individual who carries an account in the Toonerville State Bank. He has achieved those fundamental characteristics of a true cashier when and only when his reaction upon meeting Abraham McNutt of Puckerbrush, who is dressed in a pair of shabby denim overalls and wears a beard of at least a month's growth, is as whole-heartedly cordial as though it had been John D. himself.

The most useful trait that Cashier Appleton might desire to possess is the ability to judge human nature and to recognize the type to which a man belongs as soon as he has had a few minutes' conversation with him. He can do this only if he has the different classes of individuals well in mind.

One of the most difficult people the cashier has to deal with is Godfrey Glick, that arrogant, egotistical man who is of the opinion that there is nothing so certain in this world as his own existence. He is so presumptuous and self-centered that Cashier Appleton dares not greet him by inquiring about his mother and father. He must not be insulted by the mentioning of anything so unimportant as they. All of the attention must be directed to Godfrey Glick or to his chief diversion in life. It is perfectly permissible to inquire about

the increase of the size of his herd of Hereford cattle, the number of pounds of milk they give daily, and the per cent of butter fat it tests, for they are the things in which he is most interested. He has had supervision of them, he is responsible for the fact that they won first prize at the State Fair, and they are his chief delight. To persuade Mr. Glick to buy that second mortgage of ten thousand dollars, all that is necessary for Cashier Appleton to do is to make a remark about that wonderful herd of Hereford cattle. Glick is then started on his pet hobby and is in an accommodating mood. Should he not do as Cashier Appleton wishes? Is he not a sensible man? Surely he is; he likes Hereford cattle.

Another person who falls under the egotistical class is Tommy Blush, the super-sensitive. He is self-conscious to the extent that any remark that is made about his work or his family, which does not have as its special aim the idea of being complimentary or flattering, is taken to heart. He feels slighted under any circumstances unless he is paid especial attention. If Cashier Appleton is too busy with other matters to see him at the particular time he desires an interview, his first thought is that the cashier wants to dodge a conversation with him. Suppose that Tommy wants to borrow money to feed cattle during the winter. Cashier Appleton thinks this is not a sound business venture. He has seen Tommy attempt to feed cattle before and lose every cent he invested. On this ground he refuses to advance the amount. Tommy, if not tactfully refused, will consider it a direct insult to his own judgment,



honesty, and ability. The cashier must remember Tommy's tendency to jump at this sort of conclusion and in his refusal take special pains to impress him that he has implicit faith in his capability as a business man. He must soothe Tommy's injured feelings by commending at great length his skill in raising Duroc Jerseys and dwell upon how proud the good people of the community are of him and his many achievements, thereby diverting Tommy's mind from his first intention of feeding cattle.

Another good customer is Elias T. Buck, a very conservative and reserved stockholder of the Toonerville State Bank. He looks with disfavor upon any new methods. If he gets the impression that the cashier is taking up "too many new-fangled ideas," he becomes suspicious as to the stability of the bank. It is Cashier Appleton's disconcerting task to try to lead Elias to entertain a more hospitable attitude toward new ideas. It is not the point that he should agree with all of the new ideas which are presented to him, but that he must be more open-minded and willing to consider from an unprejudiced angle those little things which are of such tremendous importance at times. He must be made to see that new ideas and methods are of great value to any person or institution. The introduction of the posting machine and the statements was a source of great disgust to Elias. He could see nothing wrong with the old method. Why change? In fact he liked the use of passbooks and the listing of checks very much better than this idea of sending his checks out to him every month. If he wanted them, couldn't he



come after them? Didn't they give people credit for knowing anything any more? Elias' remarks were very scathing. Laziness is his pet abomination and the first thing he said after the principle of the posting machine had been explained to him was, "What's the matter? Are you folks gittin' too bloomin' lazy to use your heads any more for just plain sums? You have to have a machine to figgur your interest and another one to figgur your sums and now your last fol-de-rol is one that will subtract for you. 'Spose the next thing you'll be trying to buy a machine to tell whether or not a feller's honest so you won't have to bother yourself to look into his eyes and decide for yourself whether he ought to borrow money." Mr. Buck was disgusted not only because he thought the posting machine was an indication of laziness, but because the cost of the machine was prohibitive in his estimation. It would mean a reduction in his dividend check for that month. He was not far-sighted enough to see that new methods attract a certain type of people and for that reason the business of the bank would be increased. Also he could not see that after the girls became familiar with the posting machine, it would be possible for two of them to do what three had done previously. Cashier Appleton had to take a great deal of time to point out all these things to Elias, who finally admitted that "it must be a paying proposition, after all, and maybe it was not just an expensive way of getting out of work."

Just the opposite of conservative Elias Buck is Peter Perkins, the impulsive and carefree. He is inclined to invest in all kinds of wild-cat propositions, buy gold

bricks and blue-sky stock. He rushes madly into these things because it pleases him and he does not stop to consider carefully the results until the crash, which brings him to the realization that his money is gone. Cashier Appleton must make Peter see that if he desires help and wishes to avoid disastrous consequences he will have to discuss the matter before he takes the chance rather than after it is too late to be of any assistance. It is the cashier's unpleasant duty to console him when he has lost the money he had saved and to try to restore some of his self-confidence. This self-confidence must not be restored too quickly, however, if the incident is to have any beneficial effects in the way of teaching Peter a lesson. Peter is able to adapt himself to circumstances readily, and if things are too pleasant and he receives too much sympathy he may fail to see the folly of his ways.

Cashier Appleton finds that he has to be alert and quick to perceive what is required by circumstances in all cases, and it demands much initiative to keep Jack North, the nomad, interested in his home bank. He travels widely and has every opportunity for good investments. For this reason, it is up to Cashier Appleton to make the propositions at home so attractive that they will hold his money there. He must convert Jack to the idea that even though he wanders, his money must be kept at home in the safest place, the Tooner-ville State Bank. As long as Jack is still interested in the home town events, there is a greater possibility that his investments will still be made there. If he is sure of a welcome and is on intimate terms with Cashier

Appleton, he will be inclined to stop at the bank before going anywhere else on his arrival from a journey. He will enjoy "dropping in" there to discuss his problems and to tell about his experiences.

There are many very general things which must be kept in mind in the treatment of all types of people. They must feel that the cashier is personally interested in them and that he is sincere in all of his actions. He must stand firmly for his beliefs in the bigger things of life, but it is advisable for him to avoid taking sides in petty disputes. It is well for him to remember people's hobbies and make them feel that they are a source of interest to him. If at all times he is cordial and pleasant, he is sure to have a host of friends and is not in any great danger of losing a good customer because of indiscreet treatment.

### HOW THE MEANING OF WORDS CHANGES

Our language is in a state of continual change. Words are like people. They are born, grow old, and sometimes die. In growing old, they often take on new characteristics, or emphasize old ones, exactly as men do. A word's soul is the purpose it fulfills in the language, without which we have no use for it. The scope of a word, that which it merely denotes, is its face, its application is the clothing, and the quality of meaning the character. The clothing sometimes wears out and even the face is subject to many wrinkles and contortions.

If all the words in Webster's Dictionary were to

appear before us as people, what a varied assemblage that would be! And if we could persuade a few to stop working to talk to us, what interesting stories we might hear.

The word "plow," as a young man, was Anglo-Saxon, or perhaps earlier High-German, and wore a face quite different from the one he has now. "Plow" meant any business, occupation, or maintenance, and was a full brother of "play," meaning brisk motion, sport, or fight. Now he has narrowed his scope to take in only one particular farming operation.

Perhaps close by us would be an old, old man whose face is also changed with age, but expanded rather than narrowed. His clothing started in the old Greek fashion, but is now quite worn by many centuries of use.

"Yes," he says when questioned, "my name is Atlas. I was born in Greece long ago, and first signified endurance, the most noted characteristic of one of the old gods. Later my name was given to the Titan condemned to hold up the sky. A succeeding tribe of people, thinking the mountains in northern Africa to be the pillars of heaven, named them Atlas. Sailors called the great ocean Atlantic after the mountains. I have several different suits which I must wear at times, one of which was fashioned in the sixteenth century by Mercator so that he might put my name and picture on his collection of maps. Not long ago a new coat was given me. There is nothing bright about it, but it fits very well, for now I must name the bone which supports the head on your body.

"And lately," he confides rather disgustedly, "I have

to wear a very ridiculous garment, for people insisted on an insignificant green beetle being called Atlas!"

Change of clothing, that is application, is quite frequent. This may be from one physical sense to another, or from a physical sense to a mental one. For example, the Latin root of "attention" meant reaching out with the hands. Now it means, literally, reaching out with the mind—that is, focusing it upon one subject. "Fresco" in Italian meant coolness, or fresh air, and now indicates a certain kind of wall painting, usually showing outdoors scenes. This is a change from the sense of touch to the sense of sight.

Some words even change their characters. Before Christianity in England, heathen people were those who lived on the heath, or out in the country. "Heathen" now has become any non-Christian, usually to be feared or worked with by missionaries. To the Romans, "pioneers" were soldiers who went ahead of the army, clearing the way and digging trenches. Earlier still, to the Greeks, a "soldier" was anyone who worked for pay. Now he refuses to do more than one kind of work, namely military duty.

Thus we see that words change in meaning by change of face, renewal of clothing, or alteration of character. Let us keep their clothing unsoiled by applying them only in places for which they were made.

### THE COLLEGE MAN'S ETHICS

Ethics are the code of morals by which a person guides his life. They may not be definitely written,



but everyone has some rules which he follows. It may seem that some person has no definite standards to govern his life, but in most cases there is some line beyond which he will not go. The ethics of the college man are often questioned, especially in these days of criticism of education. I believe that the college man should have a very strong code of ethics; it is he who will have the leadership of the country in a few years, and the benefit which he might be to humanity will be negated by a loose moral background.

The period during which a man attends college is admittedly one of great formative possibility. It is to most fellows the longest single period which they have spent away from home. It is their first contact with other fellows on such an intimate basis, and it is here that they make or break their lives to a large extent.

Perhaps the question which is discussed as often as any other is that of honor in the classroom. In the pursuit of the god called grades, many times a fellow is tempted to take some short cut in answering some question which is asked on an examination. When this is done, the offender is weakening himself by taking the line of least resistance, even if, by chance, the knowledge which he purloined might be better fixed in his mind by the action. Many say that if the grade which is desired was not emphasized, then the cheating would be lessened. It may be noted in this relation that those who are pursuing the subjects and not the grades are the ones who finally get the grades without having to crib for them. The cheating is merely the result of the desire to get something for nothing, and it is easily



comparable to the act of the man who robs the bank to gain happiness. Cheating weakens one's character, and it is a simple step toward a bigger theft. If a fellow breaks down and cheats, he is destroying his own will power and paving the way for certain failure in life. Although the rule of the happy medium may be considered permissible in some situations, I do not believe in any halfway standards in any question of honor.

The student's attitude toward work should also be discussed in this connection. It is not a part of the moral life of the man, but it is rather a part of his mental attitude. The person who goes to college to make a fraternity, or to learn new dance steps, or what not, is wasting his time and probably his father's money. I don't want to condemn fraternities or dancing, but I believe that the student should train himself to get his work done in a satisfactory manner before permitting himself to be carried off by the social life of the school. The student who assumes a lazy or indifferent attitude not only hurts himself, but he also harms younger, more impressionable students who may observe him.

In the life of the student in his collegiate home there is a certain inclination toward a let-down. It seems easy to fall into the habit of using profanity and to imitate the primitive beast instead of trying constantly to lift himself to the higher things of civilization to which he should aspire. If the college student does not set a certain cultural standard, who will? If this college generation fails, what, then, will become of the civilization of the future?

The college student may be tempted to gamble over

some such thing as the outcome of intercollegiate athletic contests. Students place their money on their team, and as they wish to express it, "support the team." Beside being morally wrong, this practice is condemned by the athletic authorities, for it is the source of nearly all of the troubles in athletics today. Placing wagers on incidental matters, shooting craps, and taking part in games of chance, while they may seem to be insignificant, only serve to open the way to larger and more serious wagers in the future.

In social life the college student is often subjected to criticism. He is said to be the devotee of a jazzed-up life. He is said to be an intemperate drinker when he wants to have a good time. The statement is made that he is lax in his relations with women. Personally, I believe that these are not true of any large number. If any students do these, they have no place on the campus and they should be cured or removed. I do not approve of drinking and am even more opposed to laxity with girls. As for the jazzed-up life, I think that it is more a state of mind than a reality. The students for the most part have level heads and are generally conservative when it comes to cases of actual conduct.

I may be old-fashioned, but it is my opinion that the college student should be most careful in all details of his moral life. As I said before, he is in a formative period, and he is building character, not for himself alone, but also for future generations. Every attempt toward developing better morals in the present means a step toward better condition for those who are to follow.

## "MUSIC HATH CHARMS"

Jazz, jazz, jazz,—“In my day—” “Times have changed—” “No respect for the real things in life—” “Cigarettes, cocktails, jazz”—everywhere we hear condemnation of jazz. The ministers earnestly denounce it; parents shake their heads at it; musicians rise up indignantly at its mention. Magazine writers, newspaper writers, speakers—all deplore the failure of the younger generation to see the utter crudeness, the barbarity, the cheapness of jazz.

I have been brought up to respect good music. My parents—especially my mother—were very anxious that I learn good music and that I like it. I do like it. I can listen with delight to Liszt, to Tschaikowsky, to Beethoven, well played. I can sit and cry (pleasantly enough) when I listen to Kreisler play a negro melody in C# minor. I have practiced diligently my two hours a day (partly under parental stimulation) and have felt a very gratifying sensation when asked to play Chopin or Grieg in recitals. Certainly I enjoy good music. But I enjoy good jazz, too. Logically I shouldn't, but I do—Why, it's fun!

Most of my friends like jazz; most of mother's don't. I know a young man—a very nice young man,—who, two years ago when he was a senior in college, was bubbling over with jazz—old stuff like “Second Hand Rose,” but good then—he whistled it, he danced it, he fairly radiated it. Now,—a staid teacher in a large high school, he has already begun to

lose interest in the latest hits. So if we're going to outgrow it in a few years anyway, why all this worry about a little fun like jazz?

Perhaps this isn't logical, or even sensible (although I am taking business law and ought to be able to reason by this time), but if young people think it's fun, and outgrow it when they're old, why does everybody need to worry so? Like scolding a little boy for tooting a horn because it demoralizes his musical tastes.

When I am quite old—oh, thirty or forty or so—and no longer care to play tennis or dance,—when I am a portly chaperon myself—then, perhaps I, too, will say, with a disapproving stare, “Well, at least, when I was a girl—”

### MY CONCLUSIONS REGARDING THE NECESSITY FOR RELIGIOUS PROGRESS—SINCE READ- ING “CHRISTIANITY AND PROGRESS”

To many people, the name Harry Emerson Fosdick signifies a ruthless destroyer of Christian ideals, or a religious fanatic. But do they know him except by name, or his ideas and principles save through popular comment? After having the fortune of hearing Dr. Fosdick give an address, I am convinced that few people have any real background for such conceptions of him. Of course there are some who are prejudiced in the matter. To them the idea of changing their old, fundamental thoughts and religious conceptions is intolerable and wrong. Their disapproval of him would

not be changed by hearing a thousand of his lectures or reading as many of his books. To me, however, his forceful sincerity, and intense earnestness and belief in what he says, indicate his fine personality and have a convincing influence upon my opinions. In reading *Christianity and Progress*, I was likewise conscious of this earnestness, and at the same time impressed by his straightforward declaration of his own beliefs and ideals.

Through his books and lectures Dr. Fosdick is nationally known and is quoted as an authority on religious questions of the day. It is with these things in mind, therefore, that I have read and considered the discussion in his volume, *Christianity and Progress*.

The suggestion that recognition of the very idea of progress itself is very recent, was a new thought to me. Many people, I think, take it for granted, if they consider it at all, that the human race has always been progressive. However, Dr. Fosdick explains that, quite to the contrary, ancient people had a hopeless, resigned attitude toward life in general, and believed that advance of any sort was merely temporary and of little value in the end. But, beginning with scientific development and world exploration, these outlooks changed and broadened. People began to look forward and to strive for better things, and, as a consequence, their attitude toward life and progress advanced too. Only since the eighteenth century, it is stated, have people fully recognized and believed that progress is possible, and this recognition seems to have changed the



world overnight from dull inertia to a throbbing sphere of human beings in fast pursuit of elusive new ideas and facts.

This rampant progress of the material things of life is influenced a great deal by our spiritual life, we find, although religious progress has been slow. It is especially true, I believe, as Dr. Fosdick states, that there is a great need of the right kind of religion in connection with the development and interpretation of scientific facts. He makes it clear that we must have a comprehensive, progressive, and changeable conception of religion. The old interpretations will not fit new ideas, but it seems to me that the two should supplement each other, rather than oppose, as they seem to be doing. There are some, however, who declare that with our vast scientific knowledge we are independent of the frilly ideas of religion. They insist that facts are the all-sufficient essence of life. It is the problem of the present to reconcile and bring to a common understanding those who put their faith in science and those who rely entirely upon spiritual interpretation of facts.

In social progress we again find the influence of Christian ideals, although they may not be recognized through the actual work being done. The very idea of social service, it seems to me, originated with Christianity. As Dr. Fosdick points out, it is true that many people who do social work do not claim any religious influence. But I believe, with him, that God is working through them, and that there is a close connection between the Christian and social progress. With the



broadening of Christian outlook and fellowship there will be a fine resulting influence upon the work of progress.

One of the greatest dangers of the future, declares Dr. Fosdick, lies in the fact that this advance in religion has not kept pace with the progress attained in material things, so that there is now a great gulf of misunderstanding in the minds of many of us. We still interpret religion, he states, in the same static fashion of centuries ago, and yet expect our religious life to suffice, despite the tremendous advance of material progress. It is true that we are holding desperately to the old ideals, which, if only we could recognize the fact, do not fit our life nowadays at all. It is not that we should or can discard religion, but changed ideas are essential. Because of the independence we have acquired through our knowledge of science we have come to underestimate the fact that there is sin, and its consequences, still in the world. We are content to rely upon social aids for all our human ills, rather than depend upon the spiritual aid and influence.

I believe that Dr. Fosdick has, in these ideas, summed up some of the most evident and disastrous tendencies of people today. We *are* careless and overconfident, we do have an infinitely narrower conception of religion than is adequate to counterbalance our material progress. It is for us to pause and consider the path ahead; we must gain a broader conception of God and apply it. When we have accomplished this, we need not worry about the welfare of our Christian ideals.

## THE NAVAHO INDIANS

Controlling idea: The Navahos have contributed much to art and handicraft; they now need help from the government and from social-service workers.

## Introduction:

- I Name of Spanish origin
- II Indian name: Dene or Tinneh

## Body

## I Characteristics of the Indians

## A Qualities

- 1 Tribal independence
- 2 Personal traits

## B Racial type—mixed origin, no definite physical type

## II The Reservation

## A Location and size

- 1 Located in Arizona and New Mexico
- 2 Covers fifteen thousand square miles

## B Geographical characteristics—height and broken character of country—mesas, canyons, etc.

## C Divisions

- 1 Treaty area
- 2 Extension      division — granted      by President

D Government—under supervision of Commissioner of Indian affairs

E Natural resources

1 Coal

2 Oil

a Indian attitude toward development

b Hagerman's protection of oil rights

c Disposal of funds

### III Occupations

A Agriculture—scanty and unproductive

B Grazing—main occupation

1 First flocks stolen from Spanish

2 Importance in daily life

C Weaving—work of women

1 Of blankets

a Methods — primitive but artistic,  
derived from Pueblos

b Patterns used

1 Natural or symbolic

2 Never perfect

2 Of baskets, etc.

D Silversmithing—work of men

### IV Customs

A Domestic life

1 Kindly treatment of children

- 2 Type of dwelling
  - a Simple structure
  - b Lack of furnishing
- 3 Simple meals

#### B Special customs

- 1 Religious observances
  - a Nature—elaborate impersonation and drama
  - b Purpose—various
- 2 Marriage customs
  - a Buying wives
  - b Tracing inheritance—through female line
- 3 Burial customs
  - a Superstitious dread of corpse
  - b Leaving favorite possessions with dead

### V Problems of the Navaho

#### A Nature

- 1 Scarcity of grazing land
  - a Cause
  - b Result—disease among sheep
- 2 Lack of sanitation
  - a Spread of trachoma
  - b Need of medical aid

#### B Remedy

- 1 Government aid
- 2 Social service

Conclusion: The thoroughly Indian character of the Navahos—not to be civilized.

THE NAVAHO INDIANS<sup>1</sup>

- The Navaho, driven from the hunting grounds that he loved, has taken his last stand in one of America's most arid and desolate spots—a land of hardships, to be sure, but also a land of romance and beauty. Proud he is of this land of his—  
1 nearly as proud in fact as he is of his people. He feels that although his race was conquered by the white and is rapidly becoming extinct, it yet is by far the superior race. He never refers to himself as *Navaho*, a word derived from the Spanish word *Navajoa*, originally designating a district on the San Juan and Little Colorado Rivers. Instead  
2 he calls his tribe *Tinneh* or *Dene*, meaning “people”—a limiting term applied to his tribe because he believes himself to be *the* people of *all* peoples.
- 3 The Navaho is not only proud, but he is aloof and distant, never mixing with other Indian tribes and persistently keeping his distance from the white man. He is independent, too, haughtily  
4 refusing all government subsidies. Of all modern tribes he is the only one to retain his independence from the government in a pecuniary way. He alone clings tenaciously to his primitive tribal conditions. His tribes are the only Indians who develop commercially their own handicrafts.

<sup>1</sup> This theme is a paper supposed to be read at a club. The figures in the margin indicate cards on which notes have been taken. At the close of the paper, there are reproduced three of these cards. For illustration of the ordinary research paper with footnotes, see page 340.

- 5 Although the Navaho was once warlike in the extreme, he is now of a peace-loving temperament. He is industrious and happy, working hard on the American Desert for a livelihood, living one day at a time, and borrowing no trouble. Owing to the fact that he lives a strenuous open-air life, the
- 6 Navaho possesses great powers of endurance, sometimes running for a distance of twenty or thirty miles at a time without becoming fatigued. He is active, quick, and alert. The movement of his body is not hampered by suspenders, and he is not burdened with a hat.
- 7 Many generations ago the Navahos were a mixture of Apaches, Pueblos, Shoshoneans and Yumans. As a result of this intermingling of tribes they are of no particular type, although they are more closely related to the Apaches than to any other tribe. They vary greatly in feature and in stature. Some are very tall, have prominent features, and are of aggressive appearance, while others are small in stature, fine in feature, and of a very timid mien. Still others range between these two extremes. All, however, are sturdy, healthy, and agile, owing partly to inherited qualities and partly to the healthful climate of their reservation.
- 8 This reservation occupies perhaps the most arid and barren parts of the Great American Desert, located as it is in the northeastern part of Arizona and the northwestern part of New Mexico. It contains ten million acres, or fifteen thousand square



miles, being equal in size to the combined area of Massachusetts, Rhode Island, and Connecticut.

9 It is a land of wondrous beauty, having a combination of mesa, high tableland, mountains, and valleys, with the mountains predominating. Many cliffs and canyons greatly add to the beauty of the landscape. The elevation is very great,  
8 being from four to ten thousand feet above sea-level. The winters are long and extremely cold.

10 The reservation is composed of two divisions, the Treaty Area and the Executive Order Extensions. Years ago, before the Navahos lost their war-like tendencies and subjected themselves to the will of the white man, they continually went on the warpath, openly rebelling against the invasion of their territory. Many treaties between the government and the tribes were made, and just as many were broken. The Navahos were not satisfied. After many attempts had failed to bring the Indians to subjection, Colonel Kit Carson marched against them and took the leaders prisoners. The Navahos, in order to regain their freedom, made a promise to be good, in return for which they were given three million acres. This district, formerly known as the Navaho Indian Reservation, now became known as the Treaty Area.

Because of the rapid increase in their population and their growing need for more pasture for their flocks, necessity demanded that they have more land. Theodore Roosevelt, then President, made

it possible for them to have several thousand acres of New Mexico's most highly prized grazing land. Since this order was made by the President, the region became known as the Executive Order Extension.

- II The Navahos are wards of the government under the Department of the Interior. The reservation is divided into districts which are under the general supervision of the Indian Superintendents. Under the general direction of the Commissioner of Indian Affairs order is kept by the superintendent and police.

The Navahos no longer have a chief. Instead the tribe is divided into clans, each of which has a leader or head man. These head men represent their clan in their dealings with other clans, and, as a body, represent the tribe in their transactions with the white man. If a meeting of the head men is desired, word is flashed in some mysterious Indian way even to the most remote parts of the extensive territory with lightning-like rapidity.

- 12 For many years that section of our country now occupied by the Navahos was considered hopelessly worthless by the white man. In the last few years, however, much of it has proved itself to be most valuable, some of it being worth as much as five hundred dollars a foot. There are valuable coal mines all over the reservation, some of which are forty and forty-five feet deep. Near Shiprock is a very valuable vein of coal thirty feet deep. Needless to say, every Indian of the reservation

has fuel in abundance to keep him warm during the cold winter weather.

13     Until quite recently the Navaho discouraged all prospecting on his reservation. In the last few years, however, he has permitted the Pale Face to dig holes and drill wells in his territory. In fact he has rather welcomed the digging of wells, not because he is interested in oil, but because the white man often strikes water which is so necessary in that desert country for forage and drink for the sheep.

13     The oil excitement began in 1923, and since that time many paying wells have been drilled. Since the Navaho's interest in oil is only passive, and since he has never been known to possess any business ability, it is necessary that his oil rights be protected against the shrewd bargaining of the oil corporations and trusts. It is quite fortunate  
14     for the Navahos that they have a friend and champion in the person of a former Governor of New Mexico, Hagerman by name. This man, fair, keen-minded, a resident in the Pecos Valley of New Mexico, and a true friend of every red man, works diligently and untiringly in the interests of the Navahos. In order to secure for the Indians a square deal in their transactions with the oil companies he, acting as their representative, had regulations made to the effect that no leases could be sold unless at auction to the highest bidder. He also secured for the Indians a very high royalty

on their leases, some of which pay fourteen or fifteen per cent in dividends.

15 Contrary to the opinion of most people, the moneys from the oil leases are not divided among the individual Indians. Instead they are paid into the tribe fund and are used for the common good of the tribe. In this way the Navaho, careless spender that he is, cannot be cheated by his white brothers, and under Hagerman's careful direction he will derive one hundred per cent of good from his money.

16 Owing to the fact that his country is extremely arid and unproductive, and that the climate is very  
16 harsh and cold, the Navaho necessarily strives very hard for a living. Agriculture can be carried on only on a very small scale and consequently contributes a very small part of the Indian's livelihood. In the canyons and the bases of the mesas, by planting deep in the sandy soil, some horticulture is possible. In the more fertile valley of the Rio San Juan there is a little farming.

17 Grazing, however, is the chief occupation of the Navahos. Oscar Lipps, in his *Little History of The Navahos*, states that they are conceded by most authorities to be the greatest pastoral people on the Western continent. The story goes that a long time ago some Indians stole a small flock of sheep from a Spanish settlement. The women and children who cared for the sheep grew very fond of them, and as time went on proved themselves to be very good shepherds. Since nearly

every family owns its own sheep, the children, in the company of their dog and Mexican burro, can be seen almost any day herding the little flock belonging to their family. Mutton makes up a large part of the Navaho's diet, while from the wool he obtains much of his clothing and all the yarn for blanket weaving.

By the weaving of blankets and baskets the Navahos have, in addition to earning the necessities of life, made a valuable contribution to modern arts and handicrafts. Although it is comparatively a new art among the Navahos, they have  
18 far excelled the white man in weaving. From their precious flocks they obtain their wool, card, spin, dye it, and weave it into blankets of exquisite workmanship and design. All the weaving is done by the squaw, who makes up her own pattern as she works.

19 Into her blanket she weaves emblems of religious ceremonies and other symbols such as the zig-zag of lightning, the curve of running streams, and the circle of revolving reeds in the sand—all so much a part of her daily life. The vegetable dyes prepared by the Navaho and used in the blanket far surpass in beauty of shade and hue any prepared by the white chemist. Although many of the blankets are perfect in workmanship and design, they are never entirely symmetrical, an extra stripe being purposely put in or part of a design being omitted. The superstitious Indian

woman believes that if her blanket is entirely perfect she will die after its completion.

20 Although her blankets do the squaw great credit, so also do her baskets, which are equally fine in design and workmanship. Belts, garters, and saddle-girths are also beautifully woven by our Indian sister.

21 The men of the tribe excel in silver smithing. Ornaments such as rings, bracelets, buckles, etc., and silver spoons are lovely in pattern, being made with rude hand tools from good American dollars. Although the Navaho makes a small profit on his handmade silver products, he is not paid according to the fineness and originality of the design and the art of his workmanship.

22 The domestic life of the Navaho family, according to Mr. Lipps, is most happy. The father is kind to his wife and children, who, in turn, are obedient to him. The children are seldom punished and never beaten.

23 Their house is a very simple conical-shaped structure of logs and sticks covered with brush, bark, grass, and earth. Holes at the apex emit the smoke, while on one side is a door. The house is entirely devoid of furniture. The Indian rolls himself in his blanket and sleeps on the floor. He also sits on the floor. The family food, instead of being served on some sort of a table, is placed  
24 in large bowls in the center of the floor. Around the bowls the family squat, greedily eating with their fingers all that is within sight. Regardless



of the amount of food prepared, not the slightest morsel is left over.

25 The meals, always prepared by the squaws, are very simple, usually consisting of a bowl of stew made of sheep or goat flesh. This stew, bread, and coffee make up the Navaho's supper. In season they occasionally have onions, pumpkins, and potatoes. In addition to the evening meal they also have breakfast, a very simple meal consisting of fried meat, bread, and coffee.

26 The romance of the old ceremonies and customs of the Navahos is very alluring to the white man. Their religion is quite elaborate and complicated. Many ceremonies, consisting of dances, prayers, and songs, in which the gods are impersonated by masked performers, are held for the purpose of healing the sick, for bringing rain, and for success in harvesting, travel, and marriage.

27 The marriage of the Navaho is attended with many ceremonies. The man has as many wives as he has money to pay for. The Indian maiden is not allowed to choose her mate. Instead she is sold by her mother to the highest bidder, who is usually an old man, since the young man seldom has enough money to buy a lovely young girl.

28 The man never marries a woman of his own clan, and after his marriage both he and his wife belong to the bride's mother. Even though he lives with his mother-in-law, the Navaho never looks her in the face lest some terrible calamity befall him. The lineage of the Navaho is traced through the

female line. The word of the squaw is law in all domestic affairs. She has absolute control of her children, the husband not even being allowed to discipline them.

- 30 The Navahos do not like to bury their own dead. They much prefer that the white man do it for them. Superstition prevents their touching the corpse. Before life leaves the body, they wrap it in a blanket and place it in some secluded spot with all the personal belongings of the afflicted one. If the deceased be a grown person, his favorite horse is killed beside the body in order that he may gloriously gallop into the "happy hunting-grounds."

Just now, according to an article by Kenneth Roberts in a recent *Saturday Evening Post*, the Navaho is confronted by two enormous problems, both of which must be solved if he is not to dwindle away and finally become extinct.

- 31 Owing to the fact that the population has quadrupled in the last fifty years, our red brother finds that he does not have enough pasturage for his sheep, upon which he depends almost entirely for his living. As a result of poor grazing conditions  
32 the sheep have become afflicted with the scab, a disease which, if not properly treated, will finally exterminate entire flocks.

- 33 The Navaho has no conception of sanitation. As a result trachoma, a very ancient disease of the eyes, has swept over the entire reservation, thirty-

five per cent of the population being afflicted. It produces granulated eyelids, irritates the eyeball, produces ulcers, and sometimes causes total blindness. The life and happiness of whole families are wrecked by this disease. It can never be cleared away until sanitary conditions prevail and the patients are given medical aid.

- 32 The government is doing much toward the establishment of sheep dips and securing grazing land for the sheep by reclaiming the desert by means of irrigation projects. Improved methods of breeding are being introduced by the Department of Agriculture. At the same time the social-service workers are striving to produce sanitary conditions in the home and are giving medical aid to the trachoma patients.
- 34 From the viewpoint of the ordinary visitor, Mr. Lipps tells us, the Navaho is a rude, ignorant barbarian, a pagan beyond redemption, who will have none of the white man's religion. He has no desire to hear about heaven and Jesus. Instead he wants some one to teach him better ways of living and of caring for his flocks. He needs more charity and brotherly love. It is useless to try forcing him to accept the white man's customs and religion.
- 35 As a former commissioner of Indian Affairs puts it, "Our proper work with him is improvement, not transformation." He is an Indian, "a natural warrior, a natural logician, a natural artist," and an Indian he must remain.

28

Navahos - Clan system

Dr. Washington Matthews who has made study of inner life of tribe discovered 51 clans. A Navaho belongs to clan of mother. Does not marry a woman belonging to own clan.

The Encyclopedia Americana,  
vol. 19, p. 784.

24

Navajos - Meals of

No tables or chairs. Food placed on floor in big dish - family gathers around it. Takes food out with fingers. Eat everything in sight - nothing left. Breakfast a simple meal.

The Navajo and His Blanket, p. 61.

U. S. Hollister

Navaho - White man's attitude - proper  
one

(opinion of Francis E. Leupp, former  
Commissioner of Indian Affairs)

"The Indian is a natural warrior, a  
natural logician, a natural artist.  
. . . Let us not make the mistake  
. . . of washing out of them what is  
distinctly Indian. . . . Our proper  
work with him is improvement, not  
transformation."

A Little History of the Navajos

pp. 96-7. Oscar H. Lipps

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OUR NUMBERS AND THEIR PAST

We have our automobiles, our airplanes, our radios;  
improved machinery; improved telephone and tele-

graph systems—all for service and economy of time and labor. Not the least of our labor-saving devices is our present system of numbers. Those of you who have more difficulty in handling figures than in solving a word puzzle may declare that, since you have only ten figures as a basis, too much headwork is required for making the computations essential to a busy world of automobiles and radios. Let us look back and see where our numbers came from, and why the system takes the form which we know.

Centuries ago—Chinese history cannot tell us the exact period—the people of China could count “one, two” and everything after that was “many”!<sup>1</sup> In southern Asia, the shepherds counted their flocks by “one, two, three, and many,” while Egyptians of the Nile Valley counted their sheep “one, two, three, four, many”! There was no need of many names to indicate number, for the primitive peoples obtained their food from the forest and their clothing from the backs of animals, and found shelter in caves. Hundreds of years later, when the population had increased, more names of numbers were needed.<sup>2</sup> They began to count “one, two, two and one, two twos, two twos and one, a lot.” Although the Egyptians were able to count farther than other peoples, their limit seemed to be “five fives and four” and “a great many.”<sup>3</sup> Men who have studied the habits of uncivilized nations have

<sup>1</sup> D. E. Smith, *Number Stories of Long Ago*, pp. 2-5.

<sup>2</sup> *Ibid.*, p. 6.

<sup>3</sup> *Ibid.*, p. 7.



found that the people used the finger method of counting. They always seemed to begin with the little finger of the left hand and counted toward the thumb. Levi Conant tells us that this method is instinctive and "undoubtedly the outgrowth of the almost universal right-handedness of the human race. The savage inevitably uses the index finger of the right hand to mark the fingers counted."<sup>1</sup> History tells us that when the "five fives and four" became too small to meet the needs of the people, some one thought of using both hands in counting; thus it became necessary to find number words for ten fingers. "One of the greatest discoveries that the world ever made" was the method of counting by tens. Although there are many languages spoken today, every civilized nation uses this method of counting.<sup>2</sup>

Early Babylonians used it in their wedge-shaped (cuneiform) system of writing. "One" was indicated by a vertical wedge; a horizontal, wide-spreading wedge signified "ten," and a vertical wedge followed by a narrow horizontal one expressed "one hundred." "Grotefend believes the character for 10 (<) originally to have been the picture of two hands, as held in prayer, the palms being pressed together, the fingers close to each other, but the thumbs thrust out."<sup>3</sup> One could infer from this that the symbols were simply portraits of hands held in various positions. With these symbols, they could add and subtract. Inscriptions and

<sup>1</sup> Levi L. Conant, *The Number Concept*, pp. 10-11.

<sup>2</sup> Smith, *op. cit.*, p. 8.

<sup>3</sup> Florian Cajori, *History of Mathematics*, p. 4.

old tablets show that the decimal and sexagesimal systems were used and that there was a symbol for zero which was never seen in computation. It is thought that, since evidence points toward them as inventors of "cuneiform" writing, the Sumerians invented the notation of numbers.<sup>1</sup> We have no means of knowing how the sexagesimal system came into being; but "the division of the day into 24 hours, of the hours into minutes and seconds on the scale of 60, is attributed to the Babylonians."<sup>2</sup>

Turning from the early Babylonian notation to that of the Egyptians, we find a marked difference in the hieroglyphics. It is interesting to note that their symbols seemed to be so closely allied to human action or animals.

Again, we find a symbolic system quite different from those mentioned above. This is the Greek system. Again, we find an ancient people without a "zero." At first, they used the Herodianic signs ("after Herodianus, a Byzantine grammarian of about A. D. 200, who describes them"). Later, these were replaced by letters from the Greek alphabet. Such symbols were very inconvenient for calculating purposes. Like other nations, the Greeks counted first on their fingers, then with pebbles. With the development of barter and exchange, a new method of calculation, which was accomplished by means of an instrument called an abacus, appeared. "According to tradition, Pythagoras, who traveled in Egypt and perhaps in India, first in-

<sup>1</sup> Cajori, *op. cit.*, p. 6.

<sup>2</sup> *Ibid.*

roduced this valuable instrument into Greece.”<sup>1</sup> The Chinese still have it under the name of “Swan-pan.” It is thought by some writers that the abacus in an improved form may come to be as common to us as it was to the peoples of long ago, for we are seeking artificial aids to computation every year in order to save time and labor.<sup>2</sup> The instrument will be mentioned again in connection with Roman and Chinese symbols and methods. If such a tool does come into common use, we shall be able to count much more quickly than Archimedes of old. In his essay, “Sand-Counter,” he brought out the notion of counting with sand. “Assuming that 10,000 grains of sand suffice to make a little solid of the magnitude of a poppy-seed and that the diameter of a poppy-seed be no smaller than  $\frac{1}{40}$  part of a finger’s breadth . . .” and with added assumptions “he finds a number which would exceed the number of grains of sand in the sphere of the universe.” It is said that Archimedes’ object in writing this was to improve the Greek symbolism.<sup>3</sup>

Many of the fanciful notions inherited by the Greeks are expressed in the literature of Pythagoras, who tried to trace the origin of all things to numbers. When numbers had been limited to ten, even ones could be divided into smaller units. These were productive, and were considered “feminine and earthly” while the odd numbers were “masculine and therefore divine.”<sup>4</sup> Two

<sup>1</sup> Cajori, *op. cit.*, p. 52.

<sup>2</sup> L. Conant, *op. cit.*, p. 19.

<sup>3</sup> Cajori, *op. cit.*, p. 54.

<sup>4</sup> D. E. Smith, *Mathematics*, p. 40.

numbers out of the ten were considered as a separate class full of mystery. These were "three" and "seven," potent for good and evil and particularly "divine."<sup>1</sup> We often hear the expression, "There is luck in odd numbers." Where this superstition comes from is a mystery, but Pythagoreans seemed to have developed similar ideas. "There were intervals of 7 in the musical scale and 7 planets crossing the heavens." Pythagoreans considered "one" as the essence of things, an absolute number, "hence the origin of all numbers and so of all things." "Four" represented the human soul since it was the most perfect number. Thus these people found the origin of all nature in numbers.<sup>2</sup> The "four" just mentioned was a perfect number because it was equal to the sum of its factors, two plus two. There were other perfect numbers as "six" and "eight," but "four" was the most perfect. Two numbers were "amicable" or friendly when the sum of the factors of one was equal to the sum of the factors of the other.<sup>3</sup>

Just as the Greeks used fingers and the abacus for calculating purposes, so did the Romans at the beginning of the Christian era. It seems that the Roman notation came from the old Etruscan people who lived in the district between the Arno and the Tiber.<sup>4</sup> "Livy tells us that the Etruscans were in the habit of representing the number of years elapsed by driving yearly a nail into the sanctuary of Minerva, and that the Romans continued this practice." Roman notation involved a

<sup>1</sup> D. E. Smith, *Mathematics*, p. 40.

<sup>2</sup> Cajori, *op. cit.*, p. 55.

<sup>3</sup> Smith, *op. cit.*, p. 47.

<sup>4</sup> Cajori, *op. cit.*, p. 63.

principle not common to other systems—the principle of subtraction. When a letter was placed before another of greater value, it was subtracted from the larger.<sup>1</sup> We see this in the Roman numerals which we know. Such numerals were very clumsy tools for calculating purposes, but the people of that time had little need of large numbers, since their business dealings were carried on in such a small way. Instead of the old frame of wire or string, the first abacus, the Romans had one of metal having grooves filled with buttons. Each button was assigned a value; and for solution of problems these were shifted from one position to another. Addition and subtraction could be performed fairly well, but multiplication and division seem to have been almost beyond the scope of the people.<sup>2</sup>

Abacal computation in China began with the manipulation of sticks cut from bamboo. Sun-Tsu, a writer of the first century A. D., says: "In making calculations we must first know positions of numbers. Unity is vertical and ten horizontal; the hundred stands, while the thousand lies; and the thousand and the ten look equally, and so also the ten thousand and the hundred."<sup>3</sup> The Koreans copied these methods by using bones. A thousand years later, the bamboo rods and the bones gave way to the Roman idea of abacus, which had developed into an instrument having balls which could be moved along rods held by a wooden frame.<sup>4</sup>

It is to the Hindus that we give the honor of perfect-

<sup>1</sup> Cajori, *op. cit.*, p. 63.

<sup>2</sup> *Ibid.*, p. 64.

<sup>3</sup> *Ibid.*, p. 72.

<sup>4</sup> *Ibid.*, p. 76.

ing the "Arabic notation," for it has been found that the notation did not really originate with the Arabs since the principle of local value was discovered in systems written on Babylonian tablets (1600-2300 B. C.). The "zero" which had also been indicated by the Babylonians without being used in calculations, was designated by a dot in the Hindu system.<sup>1</sup> Cajori reasons that the name, "Babylonian-Hindu," is more appropriate for the notation than either "Arabic" or "Hindu-Arabic."

Let us look for a moment at the growth of Arabic notation. Before A. D. 622 numerals in Arabia were unknown. Numbers were written. However, financial disputes over conquered lands finally led to the adoption of a short numeral system. Hindu notation was taken up after the twenty-eight letters of the Arabic alphabet had been given a trial. "The symbols can be traced back to the tenth century."<sup>2</sup> Their style varied in different localities. Types of numerals brought in by conquered nations were chosen or discarded until the people found the most convenient characters.

We now come to the Middle Ages. Barter and exchange of products had increased; coins had been introduced; computation had become a part of every business. Before the thirteenth century, the center of mathematics was in France and the British Isles; but during this century, interest was transferred to Italy. The first person to suggest the adoption of the "Arabic notation" was Leonardo, the son of a merchant of Pisa. Leonardo studied, traveled, and obtained mathematical

<sup>1</sup> Cajori, *op. cit.*, p. 88.

<sup>2</sup> *Ibid.*, p. 100.



data from all countries. Thus he was able to judge as to the best method of calculation.<sup>1</sup> "The calculation with the zero was the portion of the Arabic mathematics earliest adopted by the Christians." The zero was called "zephirum" (meaning empty) by Latin scholars, and from this came the English word, cipher.<sup>2</sup> The people accepted the new notation readily enough, but scholars took to it slowly. For a time, merchants were forbidden to use it because the forms of certain digits were deceiving and caused misunderstandings in trade. "The numerals are first found in manuscripts of the tenth century."<sup>2</sup> In 1275 they began to be widely used; while the abacus was gradually dropped. The nine characters without the zero have been found in a Spanish copy of the *Origines* by Isidorus of Seville (A. D. 992). "The earliest manuscript in French giving the numerals dated back to 1275." An English manuscript kept in the British Museum is dated 1230-1250. The earliest coins dated in Arabic numerals are as follows: Swiss, 1424; Austrian, 1484, French, 1485; English, 1551. It is said that numeral forms varied; 5 was freakish; "and upright 7 was rare." Spain and Italy stopped using the abacus and counters during the fifteenth century. In 1676, computation by the abacal method is found for the last time in the English exchequer. Cajori tells us that the exchequer was distinctly organized as a court of law in the reign of Henry I, and that financial business of the crown was also carried on there. The name "exchequer" comes

<sup>1</sup> Cajori, *op. cit.*, p. 120.

<sup>2</sup> *Ibid.*, p. 121.

from the custom of using a checkered cloth on the table where accounts were made. The sheriff was obliged to answer for annual dues "in money or in tallies." "The liabilities and the actual payments made by the sheriff were balanced by means of counters placed upon the squares of the checkered table, those on the one side of the table representing the value of the tallies, warrants, and specie presented by the sheriff and those on the other amount for which he was liable." Later, pen and ink dots took the place of the counters. Then accounts were kept on a wooden stick so notched that when it was split into halves, each person had his share of the "tally." If the notches could not be matched, the transaction could not be carried on. "In the Winter's Tale (IV.3), Shakespeare lets the clown be embarrassed by a problem which he could not do without counters." "Iago (in Othello, I. 1) expresses his contempt for Michael Cassio, 'forsooth a great mathematician' by calling him a counter-caster." Thus we can see how old methods of computation mingled with the new for many, many years.<sup>1</sup>

We can see, too, how, out of the mysticism, magic squares and circles, the crude and clumsy methods of computation of olden times, our present system of numbers came to us. We have adding machines, slide rules, measuring devices of all sorts; we have books filled with tables of logarithms, of mensuration, of squares and cubes of numbers, a table for every kind of business or trade. All of these are based upon our simple numerals with their multiples of tens.

<sup>1</sup> Cajori, *op. cit.*, p. 122.





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